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MEDICAL

COMMON SENSE;

APPLIED TO THE

CAUSES, PREVENTION AND CURE

OF

CHRONIC DISEASES

AND

UNHAPPINESS IN MARRIAGE.

BY EDWARD B. FOOTE, M. D.,

MEDICAL AND ELECTRICAL THERAPEUTIST.

REVISED AND ENLARGED EDITION.

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PREFACE.

'Common Sense," I am aware, is quoted at a discount; especially by the medical profession, which proverbially ignores everything that has not the mixed odor of incomprehensibility and antiquity. Medical works are generally a heterogeneous compound of vague ideas and jaw-breaking words, in which the *dead* languages are largely employed to treat of *living* subjects. Orthodoxy in medicine consists in walking in the beaten paths of Æsculapian ancestors, and looking with grave contempt on all who essay to cut out new paths for themselves. Progress is supposed to be possible in everything except medicine; but in this science, which all admit has room for improvement, the epithet of "Quack" is applied to every medical discoverer. My prayer is that I may prove worthy of Allopathic denunciation. To this end, and the amelioration of human suffering, is this work written. To uproot error and do good should be the first and paramount aspiration of every intelligent being. He who labors to promote the physical perfection of his race—he who strives to make mankind intelligent, healthful and happy, cannot fail to have reflected on his own soul the benign smiles of those whom he has been the instrument of benefiting.

My intention in preparing this work is to supply a desideratum which has long existed, i. e., a medical work, reviewing *first causes* as well as facts and ultimate effects, written in language strictly mundane and comprehensible alike to the rustic inmate of a basement and the exquisite student of an attic studio; and if successful in fulfilling the promise of the title page, I have too much confidence in the intelligence of the

masses and the erudition of the unprejudiced scholar to believe that it will be received with unappreciation and indifference. Many of the theories which these pages will advance are certainly new and antagonistic to those of "old fogyism," but it does not follow that they are incorrect or unworthy the consideration of the philosophical and physiological enquirer. They are founded upon careful observation, experiment and extensive medical practice, and if the truth of the theories may be judged by the success of the latter, then do they unmistakably possess soundness as well as originality, for living monuments to the skill and success of the author have been and are being daily raised from beds of sickness and debility in every part of the United States. If these remarks sound boastful, be not less ready to pardon the conceit of a successful physician than that of a victorious soldier. The successful military chieftan is notoriously conceited; is it not as honorable and elevating to save life as destroy it? If a man may boast that he has slain hundreds, cannot his egotism be indulged if he has saved the lives of thousands? I shall claim the soldier's prerogative, for when medical charlatans at every street corner, are blowing their trumpets, it does not behoove the successful physician to nurse his modesty. What I write, however, shall be written in candor and with an honest intention of enlightening and benefiting humanity.

ENLARGED EDITION.

Since the foregoing Preface was written, over thirty thousand copies of Medical Common Sense have been sold. This evidence of appreciation of my efforts on the part of the public has induced me to interpolate over one hundred new pages of original matter, on subjects of great interest to every one; and if the book, as it first appeared, gave the satisfaction its large circulation would seem to indicate, I flatter myself that the revised and enlarged edition will receive a still more cordial welcome from those intelligent people who are ever on the alert for light—more light on subjects which are so identified with the mental and physical development, and health, and happiness of the human family.

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PART I.

DISEASES—THEIR CAUSES, PREVENTION AND CURE.

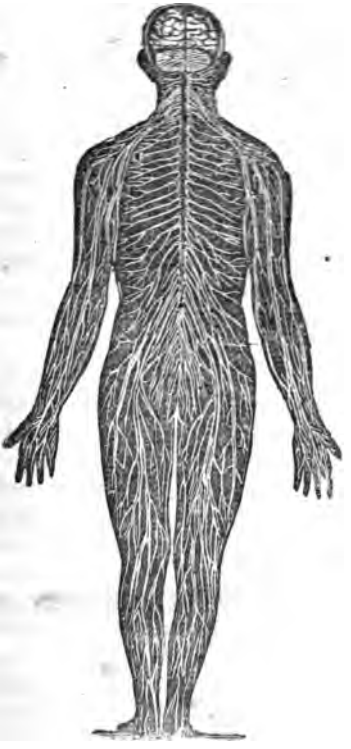
CHAPTER I.

The Causes of Disease.

DISEASE of every character, except that which is induced by accident to body or limb, originates in a disturbed mind, an obstructed circulation of vital electricity, or an impure condition of the blood. Wherever it begins unless speedily checked, the whole system is soon convulsed in its grasp, because of the close relationship existing between the various organs of the body. Those who have neglected the study of physiology, as well as all who have merely scanned the pages of ancient and modern superficial writings, will not readily comprehend the truth of these propositions. The most illiterate men of the civilized world are aware that they have a brain, and that their bodies have nerves, arteries and veins; but few physicians, especially of the old school, know the real offices of them. Doctors who have brandished scalpels in the dissecting room can point out the exact locality of every nerve, vein, muscle, tendon, etc., but the means by which each performs its appropriate part seldom awakens their curiosity. Turn to a medical dictionary for a definition of the brain. The learned physiological lexicographer wisely says—"The use of the brain is to give off nine pairs of nerves, and the spinal marrow, from which thirty-one pairs more proceed, through whose means the various senses are performed and muscular motion excited." This is all very well so far as it goes, but it will not satisfy the mind of a thorough inquirer, nor illustrate the truthfulness of my first remark. The sublime powers and superior beauties of the brain are undiscovered in such a superficial definition. The object of this chapter requires a better one, because that organ is the *capitol* of the nervous

through any porous diaphragm a current of electricity is evolved. So we find that not only are our stomachs generating electricity, but the external or serous and internal or mucus surfaces, united as they are by natural parities and porous diaphragms, are producing the same in large quantities, while our lungs are inhaling it. As it enters in, or is produced by the system, a refining process commences so as to prepare it for use, and it is received by the brain for that purpose, through the numerous branches of nerves or conductors. Thus we can see how delicately the animal fabric is constructed, and how easily, by exposure to cold, damp or poisonous vapor, the harmonious action of the numerous organs may be disturbed. The reader can now no longer doubt that multitudinous diseases arise from a disturbance of the nervous system.

Fig 2.



PROF. BRAIN'S TELEGRAPH.

From the foregoing reasoning it is equally apparent that diseases may often originate from trouble or depression of mind. So closely allied are the brain and the nervous or telegraph system, that it is impossible for one to be disturbed without exciting the sympathy of the other. The brain, beside being the receiving and distributing reservoir of animal electricity, is the residence of the mind or the spirit, and this immortal principle controls its action. When, then, any thing occurs to disturb the equanimity of the mind, the brain at once telegraphs the melancholy news over the wires or nerves to every organ of the body, and like a well regulated and affectionate family, all join in sympathy for the afflictions of the one which they regard as the head and provider. The nervous system loses its

healthy action, and through it the vascular; and when the manufacture of pure blood and its faithful distribution through the various functions dependent upon it for support are in any degree suspended, general debility if not actual prostration must ensue. Says Combe, "The influence of the brain on the digestive organs is so direct, that sickness or vomiting are among the earliest symptoms of many affections of the head, and of wounds and injuries to the brain; while violent emotions, intense grief, or sudden bad news, sometimes arrest at once the process of digestion, and produce squeamishness or loathing of food, although an instant before, the appetite was keen.

"The influence of the mind and brain over the action of the heart and lungs is familiar to every one. The sighing, palpitation and fainting, so often witnessed as consequences of emotions of the mind, are evidences which no body can resist. Death itself is not a rare result of such excitement in delicately organized persons."

The reader will now understand why the state of the mind is so influential in the production and progress of disease.

"In the army, this principle has often been exemplified in a very striking manner, and on so large a scale as to put its influence beyond a doubt. Sir George Ballingall mentions in his Lectures on Military Surgery, that the proportion of sick in garrison in a healthy country and under favorable circumstances, is almost five per cent; but that during a campaign, the usual average is never ten per cent. So marked, however, are the preservative effects of cheerfulness and the excitement of success, that, according to Vaidy, the French army cantoned in Bavaria after the battle of Austerlitz, had only one hundred sick in a division of eight thousand men, being a little more than one in the hundred. When, on the other hand, an army is subjected to privations, or is discouraged by defeat or want of confidence in its chiefs, the proportion of sick is often fearfully increased."

The awful fatality which attended the allied armies at the Crimea was, undoubtedly, more attributable to bad management on the part of the commanding officers, than to inclement weather. The soldiers having lost confidence in their commanders, became depressed in spirit. They were filled with fearful forebodings. The buoyancy of their nervous systems was disturbed, and thereby digestion impaired. Thro' these discouragements they were made susceptible to disease, however favorable the climate; and a slight change in a

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foreign atmosphere, under such circumstances, would induce the most fatal results.

The English press attributed the sudden death of Lord Raglan to the censures heaped upon him at home. Many politicians in this country, ascribe the brief illness which ended the career of one of our most illustrious statesmen, to disappointment in not receiving the presidential nomination from a convention of his party. Thus we perceive the influence of the mind on the body is generally admitted, although few stop to divine the means by which it is effected. It must, therefore, be understood that every organ is notified, on the telegraphic system, if anything offends the spirit of the human being. Or, if through any accident to the limbs, or impurity of the blood, the harmonious evolutions and circulation of the electric fluid in any part of the body are disturbed, the brain feels the loss, discovers the cause and faithfully informs every member of the family, who endeavor to conciliate the difficulty, and if they fail the whole system is thrown into discord.

Next I will speak of the blood. All diseases which do not arise from a disturbance of the nervous system or troubles of mind, I contend, have their birth in the vascular system. This is self-evident when the reader reflects that the component parts of all animal matter are found in the blood. The bones, muscles, cartilages, all the fluids, acids, alkalies, &c., pertaining to the animal structure, are developed and nourished by the blood. Combe remarks that "the quantity and quality of the blood have a most direct and material influence upon the condition of every part of the body. If the quantity sent to the arm, for example, be diminished by tying the artery through which it is conveyed, the arm, being then imperfectly nourished, wastes away, and does not regain its plumpness till the full supply of blood be restored. In like manner, when the quality of that fluid is impaired by deficiency of food, bad digestion, impure air or imperfect sanguification in the lungs, the body and all its functions become more or less disordered." The heart undergoes four thousand contractions every hour. Each ventricle is reckoned to contain about one ounce, and therefore we are brought to the astonishing realization that two hundred and fifty pounds of blood pass through it in that brief space of time. Now if the blood is impure, and nature, in addition to being deprived of its proper nourishing qualities, is obliged to counteract and throw off its corrupt particles, there is certainly a decided chance for the human

machinery to become weakened if not stopped by the accumulation of poisonous humors. So the body, instead of being strengthened by the large quantities of blood sent through it by the heart, must inevitably sink under it. If weakness in the muscles, pains in the bones, head-ache, cutaneous diseases, scrofulous swellings, etc., ensue, to what do we trace them? Why, manifestly to the blood.

It now having been shown that a free circulation of vital or nervous electricity, an unruffled mind and pure blood are essential to good health, it requires only a moderate exercise of "common sense" to perceive that all diseases originate from a disturbance of these indispensable conditions. There may exist hereditary organic weaknesses, but even those had their origin in conception or in fœtal life from the disturbed vital fountains of the parent, thus not allowing a single exception to my theory.

The attention of the reader will next be directed to the principal causes of nerve and blood derangements, or the *primary* causes of disease. But before concluding let me ask the reader if the foregoing does not lead to the irresistible conclusion that electricity, cold water, cheerfulness and good vegetable blood medicines are the remedies which nature demands for all kinds of diseases with which mankind are afflicted?

CHAPTER II.

The Causes of Nervous Derangements and Blood Impurities.

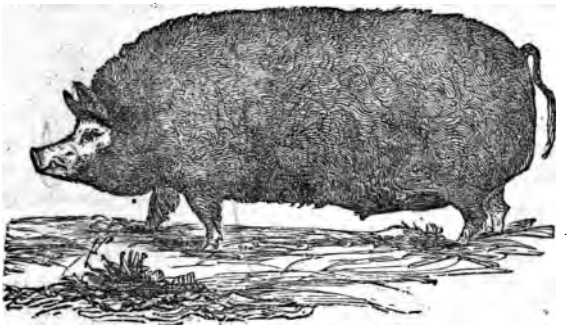
The subject of this chapter opens a boundless field for the investigation of the physiologist. Indeed, should I attempt to trace out all the influences, immediate and remote, which tend to destroy the mental and nervous equilibrium, and render the blood a fountain of death rather than life, I should fill many volumes like this, and then my task would be unfinished. I shall therefore limit myself to an explanation of the principal causes; those over which we have the easiest control. Each shall be treated under its appropriate head, with such variety of matter as may be necessary to make it entertaining as well as instructive.

1st. THE FOOD WE EAT.

One of the most common causes of blood impurities is the use of pork. It has been said that all things were created for some wise purpose. This is undoubtedly true, but hogs were never made to eat. We read that Christ used them to drown devils; they can never be appropriated to a more beneficent use. As an article of diet, pork exerts a most pernicious influence on the blood, overloading it with carbonic acid gas, and filling it with scrofula. The hog is not a healthy animal. From its birth it is an inveterate gormandizer, and to satisfy its eternal cravings for food, everything in field or gutter, however filthy, finds a lodgment in its capacious stomach. It eats filth, wallows in filth, and is itself but a living mass of filth. Now, when it is remembered that all our limbs and organs have been picked up from our plates—that our bodies are made up of the things we have eaten—what pork-eater will felicitate himself with the reflection that according to physiological teachings, he is physically *part hog*. "We have been served up at table many times over. Every individual is literally a mass of vivified viands; he is an epitome of innumerable meals; he has dined upon himself, supped upon himself, and in fact—paradoxical as it may appear—has again and again leaped down his own throat."

The humoral properties and inflammatory effects, which pork imparts to the blood, actually tend to generate vermin in the system. Grub in the liver, kidneys, lungs, and other organs, not unfrequently have their origin in the use of this filthy article of food. The "Gazette Medicale," also asserts that the "tape worm only troubles those who eat pork." It further remarks, "that the Hebrews are never troubled with it; that pork butchers are particularly liable to it; and that dogs fed on pork are universally so afflicted—in fact, it turns out that a small parasite worm, called *cysticerous*—from two words signifying a small sack and a tail—which much affects pork, no sooner reaches the stomach, than, from the change of diet and position, it is metamorphosed into the well known tape-worm; and the experiments of M. Kuchenmeister, of Zittoria, made with great professional care and minuteness of detail, upon a condemned criminal, have established the fact beyond contradiction."

Fig. 3.



A FIRST CLASS PORKER.
A pretty looking thing to eat.

The foregoing remarks have been made with reference to the best class of swine; but what shall I say when I come to speak of those fattened in distilleries! I have seen droves of these inflated creatures driven to the slaughter houses in Cincinnati. A herd of diseased, bloated, besotted men, could not be more sickening to the refined spectator. The hair of these creatures is invariably thin and scattered, and the skin looks like that of a confirmed inebriate. Some have tumors varying in size from a small apple to a good sized cabbage. I have been told by Cincinnati butchers, that tumors are not unfrequently found inside the meat, and that when laid open by the

knife, purulent matter gushes out. But still these diseased and bloated carcasses are raised to sell, and, for shame be it said, form one of the most common articles of food, in our large cities. Many a pork eater has been cured of his partiality for "spare rib," "pigs feet," "head cheese" and "souse," by visiting the slaughter-houses of the great "porkopolis" of America.

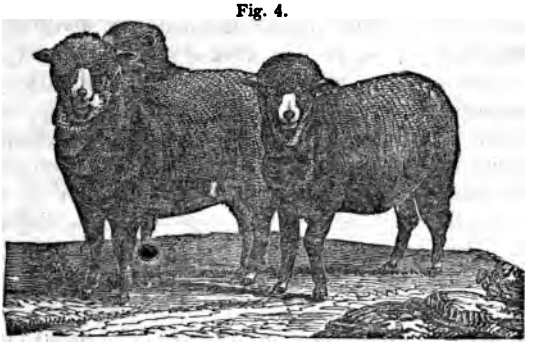
It is but recently that a gentleman living near the town of Rockingham, Va., lost five head of young cattle and five milch cows by permitting them to run in the same lot where his hogs were feeding. The hogs ate the stalks of corn, or rather chewed them, and left them on the ground. These were taken up by the cattle, eaten and swallowed. Soon they were taken with an itching all over, and commenced rubbing their heads; their throats swelled; and in a short time death ensued! Their disease might be termed an acute attack of scrofula, with which they became infected from the virus communicated to the stalks by the dirty swine. Still the flesh of these diseased animals is regarded as a healthy and relishable article of food, by a large majority of civilized mankind! Ugh! let us not upbraid the barbarian who eats snails and lizards, for his disgusting epicurean eccentricities, while civilization tolerates hog-eating.

Mutton ought universally to be substituted for pork. It is the easiest digested, and may be strictly regarded as a healthful meat. Besides, it can be produced at much less expense than pork, and yields more nourishment. Sheep need no corn, and can be kept during the winter on hay, turnips, beets, etc. True, pigs will eat what nothing else will, and consume all the slops of the kitchen; but a great deal of corn or other solid food is required to fatten them for the butcher. Besides, sheep will eat all that is fit for food from the kitchen slops, and their preparation for the slaughter house is attended with trifling expense.

The use of animal food of every kind has been pronounced injurious by many. That it is not necessary for the sustenance of man I am fully convinced; equally satisfied am I that its moderate use is attended with no injury. But almost everywhere it is used to excess. Too much animal food inflames the blood, and thus generates too much heat in the system. In our climate and in southern latitudes little or none should be used in summer, while a moderate use of wholesome meats in winter aids the system in preserving warmth. Beef, mutton, lamb, venison, poultry, and even horse-flesh, may be regarded as wholesome meat. Prof. St. Hilaire, of Paris, strongly

urges the introduction of the latter as an aliment. He says that during the great French wars, the celebrated surgeon Larry was accustomed to give horse flesh to the wounded soldiers, and that he attributed their cure, in many instances, to this nourishment. The ancient Germans were in the habit of eating horse-flesh, and to this day shops for the sale of this meat, under the superintendence of a veterinary college, exist by authority in Copenhagen. It is also resorted to by the poor of Vienna, while in Hamburg it commands a high price. The horse is considered a great delicacy in some of the southern portions of South America, where it is introduced at the festive board as a luxury equal to our sirloin of beef. I doubt not its utility and even cheapness on the battle ground, where the majestic steed is hourly falling before the destructive cannon ball. Those who turn up their noses at the idea of eating horse flesh, are requested to lead a horse from the stable and a pig from the gutter, and ask themselves which is the most respectable looking candidate for the carver.

Fig. 4.



SHEEP.

Wholesome to the eye and wholesome to the stomach.

Parents who give their children, under ten or twelve years of age, a meat diet, commit a vital error. The great mortality among children of tender age, is, in my opinion, mainly attributable to ignorance on this point. A healthy infant or child glows with animal heat. His little vital machinery, fresh from the ingenious hands of nature, is full of life, electricity and animation. At birth, his palpitating little heart contracts from 130 to 140 times per minute. At the age of three his pulse is above ninety, while that of an adult averages seventy-five. Is it not, then, manifestly wrong to give him

a stimulating diet? In rigid winters, the indigent mother sometimes freezes to death; not so the babe in her arms. Who cannot call to remembrance some instance in illustration of this remark? The fact is, to speak electrically, children are in a *positive* condition. They are full of vital electricity; to augment in them that active element is simply to inflame the blood and render them susceptible to positive diseases. What I mean by positive diseases are fevers, bowel complaints, croup, water on the brain, &c. Hence their diet should be plain and nutritious; not stimulant. Vegetable food is the best adapted to the nourishment of their little bodies, and keeps their blood pure and healthful, while flesh generates large quantities of carbonic acid gas, which contains 72 parts of oxygen in 100. As the child approaches youthhood, and his vital machinery gradually becomes more sluggish, his diet may be made more stimulating. Fish and poultry may be added to his vegetable regimen. At adult age, beef and other strong meats may be used in moderation, to advantage, and when old age creeps on, a good stimulating diet is imperatively necessary to impart vigor. Let indulgent mothers, who set their childrens' blood on fire with animal food, and then let their doctors kill them in endeavors to quench it with poisonous drugs, hesitate before they add fuel to the flame. Children do not crave animal food. They would not eat it were it not introduced into their toothless mouths while in swaddling clothes, when they have not sense enough to reject it, by which means they acquire a taste for it. I have a fine vigorous boy of three years, who will not eat meat. He weighs over forty pounds, and has never had an hour of serious illness. He often felicitates himself on what he will do when he arrives at adult age, and frequently remarks: "When I get to be a *big* man then I'll eat meat, won't I papa?" Still the little fellow has no desire for it now, and if I happen by mistake, while helping others, to put a piece on his plate, he laughingly exclaims, "Why, papa!" He would manifest still more surprise could he comprehend the physiological objections to his indulgence in such diet.

If I may be allowed a brief paragraph to deviate from the legitimate purpose of this chapter, I will remark that the excessive use of animal food is a great *social evil*. It is a proverbial fact, that mankind are too much given to the brute diversion of fighting. Even our halls of legislation are disgraced with personal encounters, between gentlemen who are *supposed* to be far elevated above the brute crea-

tion, by their distinguished intellectual endowments. Now we have as good authority as Prof. Liebig, that meat makes men more pugnacious. He says: "It is certain that three men, one of whom has had a full meal of beef and bread, the second cheese or salt fish, and the third potatoes, *regard a difficulty which presents itself* from entirely different points of view. The effect of the different articles of food on the brain and nervous system is different, according to certain constituents peculiar to each of these forms of food. A bear, kept in the anatomical department of this university, exhibited a very gentle character as long as he was fed exclusively on bread. A few days feeding with flesh rendered him savage, prone to bite, and even dangerous to his keeper. The carnivora are, in general, stronger, bolder, and more pugnacious than the herbivorous animals on which they prey; in like manner, those nations which live on vegetable food differ in disposition from those which live chiefly on flesh." Forbearance is a great Christian virtue, and should be cultivated by every enlightened man. Had human beings been intended for fighting animals, their finger ends would have been decorated with huge unbending nails, and their jaws distended with savage tusks, like the boar. The excessive use of flesh is, therefore, sinful, and leads man to forget his present duty and his heavenly destiny, because it excites those lower faculties which are so prone to dethrone reason.

Grease is supplied quite too abundantly for the table, to preserve the purity of the blood. Weak stomachs call loudly for reform in this particular, while strong ones faithfully perform their work of sending the offending substance to the vascular system, to feed or create humors. Fat is not digested in the stomach, but simply melted and absorbed into the blood. A certain amount is necessary to nourish the brain and save the "wear and tear" of the nervous system; but fatty meats and rich gravies are positively injurious. Grease is a non-conductor of electricity, and its presence in large quantities in the stomach tends to resist the action of the nervous fluids furnished by the brain through the pneumo-gastric nerve, and impair digestion. Lean meats, eggs, milk, butter, bread, potatoes, corn, &c., furnish all the oleaginous substance necessary to carry on the processes of nature.

Protracted intervals between meals should always be avoided if possible. In large cities it is the custom of many business men to go from 8 or 9 A. M. to 4 or 5 P. M. without eating. Three-fourths of the merchants of New York do not dine till 5 o'clock, and a large

number of these take no luncheon. Some one has remarked that "the idle man is the devil's man, and it may also be said of the stomach, that if it has nothing to do it will be doing mischief." The gastric fluids require something to act upon, and if there is no food in the stomach they take to the membrane and coatings, causing irritation if not inflammation. They act upon the food in the stomach the same as the acid in the battery upon the galvanized zinc. If the latter is not frequently replenished with a coating of quicksilver, the zinc will soon be destroyed. So with the stomach; if it is not well supplied with food, the gastric fluids will do mischief to its delicate membranes.

Long fasting also tends to another evil, viz: overloading the stomach. Better take four light meals a day than overload the stomach once in three. Too much food overpowers the nervous system as much as excessive muscular exercise. To sum all, under this head, people must be more careful what they eat, at what times they eat, and how much they eat, if they would preserve the healthy condition of the vascular and nervous systems. There can be no precise rule laid down for the governance of all. A little careful observation, however, would teach every one of mature age what is best adapted to his particular organization. If men would watch with half as much anxiety the influences of different articles of food on their systems as they do the effects of growing crops, and financial failures on the money market, longevity would oftener be obtained than large fortunes.

2ND. THE LIQUIDS WE DRINK.

A proper understanding of the effects of various liquids commonly used as beverages, would do much to prevent nervous derangemerts and blood impurities. The Chinese tea forms the principal beverage of all the Northern States and British provinces of America. In Central America, the heterogeneous population resort to chocolate, whilst in South America the tea of Paraguay is freely indulged in. In the Southern States and West India Islands, coffee seems to be the greater favorite, particularly with the adopted citizens, and perhaps this remark is equally true of this class in the Northern States. In France, Germany, Sweden and Turkey, coffee is principally used; in England, Russia and Holland, tea; in Spain and Italy, chocolate; in Ireland, the husks of cocoa. The Chinese tea has found its way to the Himalayas and the Plains of Liberia, and is probably drank by more

people than any other beverage. Coffee leaf tea is sipped in Sumatra, while the Ethiopians of Central Africa quaff the Abyssinian chaat. Thus we see that warm drinks are popular with Christian and Savage, and if we accept the wisdom of intuition and instinct, we must consider them, as a general rule, healthful.

Fig. 5.

THE CHINESE GATHERING TEA.

The fact that tea does not agree with me does not prove it a dangerous or injurious beverage. Some people cannot eat strawberries, without a succession of colic. Others enjoy strawberries but a sweet apple will create constipation. The effects of tea and coffee depend entirely on the peculiar idiosyncrasies of the drinkers, and, the same as in the use of food, no definite rule can be laid down. General directions may be given, which, if observed, will enable

most intelligent persons to judge what is positively hurtful in their individual cases. Nervous people should never drink tea, while those of a bilious and lymphatic temperament can usually indulge with impunity. The effects on the former are usually weakness, tremor, hysteria, and hypochondria; while on the latter, they are mental and corporeal exhilaration. Tea acts at once on the nervous system, quickening the circulation of electrical elements and imparting to the man of sluggish nerve, activity and vivacity. With its narcotic properties it possesses peculiar exhilarating powers, which may result, in a measure, from the speedy reactory effects of the former. Coffee, on the other hand, is generally suitable to nervous persons. It acts more upon the blood and is bracing to the muscular system. Persons who are not bilious may often allay a severe headache or a weakness of the stomach, by a moderate potation of this luxury. Asthmatic persons also find relief in its use provided other peculiarities of their systems do not reject it. Coffee should not be used by fleshy and bilious people. It thickens the blood, and apoplexy is sometimes the result of its excessive use. For the same reason, chocolate and cocoa may be drank by nervous people, while they are injurious to those of corpulent tendency. Many nervous individuals, however, cannot drink coffee, chocolate or cocoa, for the same reason that they cannot drink any hot beverages, i. e. they stimulate in too great a degree the action of the stomach battery, by which means the system becomes over-powered with animal electricity, and the vital organs rendered too active. Pour hot water into the acid of a galvanic battery and the generation of electricity is greatly accelerated. As in eating, therefore, effects should be watched and heeded. Tea and coffee, like meats, are abused. They are universally used to excess, and by many who should not use them at all. Children, particularly, are better off without them. They require no artificial stimulus; only nourishment.

Beer is a very ancient beverage, and may be considered wholesome, if unadulterated, for lean, nervous and bloodless people, for which reason it is not a proper drink for corpulent and muscular men. As might be inferred from the present beer-drinking propensities of the Germans, it is no new beverage to them. The ancient Latin historian, Tacitus, speaks of its use among this people over a thousand years ago. It is well that the avaricious, scheming Yankee did not live then, or it may reasonably be questioned whether the fat

representative of "faderland," would have been in existence to-day. The reader is not probably aware that a very large proportion of the beer sold now-a-days, under the various names of porter, ale, etc., are base adulterations; but it is so, particularly in the "corner groceries" of large towns. Wormwood and aloes are often substituted as a bitter for the invigorating hop; sulphate of iron, alum and salt are sometimes used to give it a frothy or effervescent property. Bad or weak beer is made palatable by the addition of coriander seed, hartshorn, liquorice, copperas, Spanish juice, quassia, orange-peel, capsicum, ginger root and so forth. New beer can be made to taste like that two years old, by the addition of sulphuric acid. I have had this article imposed on me in New York, so bunglingly prepared as to betray its poisonous, artificial *maturity* as soon as tasted. Great care should therefore be taken, by those who wish to derive benefit from beer, to obtain a good article. Do not buy unless you know the retailer and brewer, at least by reputation. The patrons of promiscuous beer cellars are filling their blood with inflammable impurities which render their systems ready victims to rheumatism, fevers and epidemics.

VINOUS AND DISTILLED LIQUORS have accomplished a great deal of good and misery for mankind. The useful medical properties of unadulterated wine, brandy, gin, rum and whiskey, have never been disputed; while, as beverages, they have been held in much favor by not a few of the intelligent as well as illiterate men of all civilized nations. And I am in doubt if the strenuous efforts of temperance philanthropists to check the excessive use of them, have not augmented the evils of intemperance by driving almost all respectable men from the traffic, in consequence of which it has been left open to the piratical speculations of unprincipled vagabonds, who do not scruple to sell their customer a destructive compound of Spanish juice, spirits, sulphuric acid, burnt sugar, &c., for brandy. The coercive laws for the suppression of the sale of ardent spirits seem to have proved utterly futile. The enormous quantity of forty-seven million gallons of whiskey, rum and brandy were made in the United States during the year 1856, being nearly two gallons to every man, woman and child in the country. More than one-half of these were undoubtedly slaughtering compounds, whose pernicious properties have already sown the seeds of death in the blood and nerve of millions of people. The physician in the House of Correction at Law-

rence, Mass., says it is almost impossible to treat delirium tremens successfully now, in consequence of the utter prostration of the nervous system of drunkards by the strychnine so generally used in the manufacture of liquors. The chemical inspector of liquors in Cincinnati gives additional "aid and comfort" to inveterate tipplers, by announcing that he has made 249 inspections of various kinds of liquors during the past two years, and has found more than nine-tenths of them imitations, and a great portion of them poisonous concoctions. Of brandy he does not believe there is one gallon of pure in a hundred, the imitations having corn whiskey for a basis, and various poisonous acids for the condiments. Of wine, not a gallon in a thousand purporting to be sherry, port, sweet malaga, is pure, but they are composed of water, sulphuric acid, alum, cayenne pepper, horse-radish, and many of them without a drop of alcoholic spirit. He further says, that he will warrant that there are not ten gallons of genuine port wine in Cincinnati. Speaking of whiskey he adds that in his inspection he has found only 17 to 29 per cent. of alcoholic spirit, when it should have been 45 to 50; and some of it contained sulphuric acid enough in a quart to eat a hole through a man's stomach. According to newspaper accounts, several hundred hogs recently died at a distillery from the effects of strychnine used in the preparation of whiskey—they having feasted their ravenous stomachs on the slops. With all these startling facts staring us in the face, it is clearly the duty of the physiologist to warn people against the use of spirituous liquors. Pure liquors accelerate the generation and circulation of nervo-electricity, and may be used advantageously, in moderation, by those whose vital organs are sluggish or brain inactive. As a general rule they are very injurious to nervous people, and are apt to induce insanity, delirium tremens, hypochondria, fits, and other diseases common to those of easy nervous excitability But drug liquors are alike injurious to all. There was a time when whiskey drunkards frequently attained a remarkable longevity. How many whiskey drinking octogenarians can be found to-day? Few, if any. Strychnine destroys the equipoise of nature—augments the alkalies of the mucous membranes, and thereby destroys

Fig. 6.

THE MAN WHO DRINKS MODERN LIQUORS.

the harmonious evolutions of vital electricity carried on by the combined action of the internal and external fluids.

Having hastily reviewed the physiological effects of the most common beverages concocted by man, I will now call the attention of the reader to those fluids which nature has so abundantly furnished for the use of mankind. Many may be surprised to find that these are not entirely above criticism.

MILK is the first liquid which is permitted to enter the human stomach; and, perhaps, considering the ignorance, indiscrimination and reckless folly of the mass of human animals, it were better if others had never been provided. True, milk is extensively adulterated in large towns, but the articles used for that purpose are usually comparatively harmless, except to small children whose delicate little stomachs are hardly prepared to digest or expel such substances as yolks of eggs, sheep's brains, flour, subcarbonate of potash, chalk and hard water. So much is not to be feared from adulterated milk as from that obtained from diseased animals. Cows are kept the year round in stables by many dairymen in cities. By confinement, if not by bad food, they become diseased just as men and women do when shut in from open air and exercise. Their disease as a matter of course, renders their milk unwholesome and innutritious. When, together with confinement, cows are fed on still slops, their milk becomes actually poisonous. Some hard stories are told of New York dairymen, who, it is said, keep their cows closely tied up in sheds and fed on still slops till they actually drop dead in their stalls. From the specimens of milk that I have seen in that city, and the dishonest character of many of those engaged in the milk traffic, I am not disposed to doubt their entire truthfulness.

Fig. 7.

A MAN WHO DON'T.

Fig. 8.

THE AUTUMN OF A TEMPERATE LIFE.

The shocking consequences of such speculative recklessness falls with particular severity on the juvenile portion of a metropolitan

population, and it is sad to contemplate that the perversity of man can lead him to the perpetration of such wholesale slaughter of innocent babes who, by reason of maternal disability, are denied the nourishment of a mother's breast. But the cupidity of the unprincipled money-seeker knows no limit, and the fact that such imposi tions are practiced, should lead the consumer to guard himself against them.

Fig. 9.

TEETH OF A STALL-FED COW.

Pure milk is not congenial to every one. In some, by its dilution of the gastric fluids of the stomach, together with the resistant action of its oily property, the generation of vital electricity is impeded and

Fig. 10.

TEETH OF A GRAZING COW.

drowsiness induced. In others, who are predisposed to catarrhal difficulties, the gluten of milk increases slime and tends to aggravate the complaint. But with the majority of people milk is a highly

nutritious drink, and when copiously added to tea and coffee often renders these beverages harmless to those who otherwise could not use them.

WATER is sometimes the cause of blood diseases. If good, pure spring water could be obtained in all parts of the world, it would be the healthiest drink for man. And so would it be if nature were more bountiful in the distribution of such streams as the Croton, Cochituate and Schuylkill of America; the Seine of France; and the dashing rivulets which play in the mountains of Switzerland. But when the thirst can only be quenched by the muddy and sewerage waters of the Ohio, the Mississippi and Thames, pregnant as they are with the filth of cities and the decomposed matter of vegetables and dead animals, it is not strange that the vitality of the blood is impaired by their vegetable and animal exuviæ. Many of the denizens of Cincinnati, Louisville, St. Louis, New Orleans and London, flatter themselves that their river waters are very wholesome! But it is a proverbial fact that every traveller must have a dysentery or something approaching thereto on initiating his stomach into the use of them. Like an unwilling slave, the system can after awhile be whipped into submission, but it reposes only long enough to collect in the blood sufficient impurities to revenge on the individual in the form of diarrhœa or bilious, typhoid, intermittent or yellow fever. Hence, together with bad diet, the frequency of these forms of disease in the cities mentioned.

Some of the residents along the shores of these rivers are aware of the injurious properties of their waters, and resort to rain water. Unfortunately they only "jump from the frying pan to the fire." In the large cities designated, the air above is no cleaner than the streets beneath. It is the reservoir of the animal effluvia of crowded populations. The breath of thousands of diseased men and animals mingle with the rains as they descend, infecting them with their poisonous gases. I have no doubt that, in seasons of epidemics, the seeds of the prevailing diseases are often drank with water. Consequently those who drink rain water should first expose it for several days to light and air and then to filtration. By these means it may be rendered wholesome, and better by far than the heterogeneous compound of decayed vegetation, solution of dead horses and dogs, and the city slops, which flow in the channels of many rivers.

The well water of limestone countries is productive of gravel and kidney difficulties, while that of new countries is often rendered

unwholesome from the drainage of decayed vegetation. The former is known by its hardness and the latter by its peculiar odor and frequent discoloration.

Brook-streams which have the appearance of purity are not always safe to be drank, in consequence of the possible presence of dangerous animalculæ; many instances of frogs, evets and worms in the stomach, having occurred in consequence of want of care in this particular. Those having their sources or channels near marshes, frog ponds, hog-pastures, cesspools, distilleries, poultry yards, slaughter houses and saw mills, may with good reason be avoided. Pedestrian travelers and sportsmen, when overtaken with thirst should look for some farm house and regale themselves with a bowl of milk, rather than suck in the waters of an unknown brook. Everywhere that good milk can be obtained it may safely be regarded as the most wholesome and nutritious drink.

3RD. THE ATMOSPHERE WE LIVE IN.

This is a fruitful source of nervous derangements and blood impurities. And as my views with regard to the influence of air upon the human system are somewhat peculiar, and a proper understanding of them necessary to aid the reader in readily comprehending many important points in subsequent pages of this work, I shall subserve both the purposes of this chapter and many which are to follow, by a general treatise on the nature and effects of this wonderful element. Air is composed of 78 per cent nitrogen, 21 per cent oxygen or electricity, nearly 1 per cent of carbonic acid gas, and more or less vapor of water, according to its temperature. I am not alone in believing that oxygen is identical, or nearly so, with electricity, but if I were, my opinion would remain unchanged until some good philosophical argument could be adduced to show the contrary. The origin and real nature of both are unknown, but certain it is their effects are similar, and whatever difference is observable may be occasioned by its combination with other substances, for, according to generally received opinion, "nature never presents it solitary" Still, this view of the subject is not vital to the theory I am about to advance, for it is now universally admitted by scientific men, that electricity permeates everything—the air around and above us as well as the earth beneath our feet.

The quantity of electricity diffused in the air exerts a potential influence on the health of man, and an excess of the element in the

atmosphere, is as injurious as a moiety. In dry and pleasant weather the human system is relatively in a positive and the air in a negative condition; that is, the former possesses more electricity than the latter. The result produced by this disparity between the body and the element which surrounds it, is a constant *radiation* from the former, or in other words a continual flowing off of the electrical element into the atmosphere, as represented in the annexed cut. It is well known to physiologists, that when the pores of the skin are in a healthful condition, there is an incessant discharge from the skin of what is termed insensible perspiration; but nothing is said of the motive power by which the effete particles of the system are thus so wonderfully carried off. Now, if a doctor should retire at night with his garden strown with filth and rubbish, and on arising in the morning should find the whole mass emptied into the street, he would naturally enough inquire who or what had re-removed it. Surely dead and waste matter could not remove itself. Strange it is, then, that the astute professors of anatomy and physiology have never thought to ask themselves how the corrupt particles of the system day by day, and year by year, during the natural life of man, are emptied into the great thoroughfare of life—atmospheric air. The pores possess no power in themselves to throw them off, and if, by the act of contraction, they should succeed in expelling these impurities, with no motive power to carry them away from the skin, the latter would daily become coated with the diseased exudations of the body. There are about seven millions of pores in the human body, and the quantity of useless matter that is daily discharged from them amounts to from *twenty to forty* ounces. The reader can see, there-

Fig. 11.

ELECTRICAL RADIATION.

fore, how soon the avenues of the skin would close up, were the discharge of effete matter produced by merely a contracting process of the pores. Nature has manifestly employed a motive power, and that agent is the same which the mind of man uses in controlling his muscular organization, and the same, too, that the Almighty employs in moving and sustaining the planetary systems of innumerable worlds.

Dry and pleasant weather, then, is most conducive to health, because the relative conditions of the atmosphere and the body, are best calculated to promote this electrical radiation which carries off the *rubbish* of the external portions of the system. In damp or rainy weather, the air is unusually charged with electricity, as is often evinced by vivid flashes of lightning. There is a greater proportion of oxygen in water than in air, and it is probably from this source that the undue presence of electricity is derived. Owing to this, a partial equilibrium is produced between the body and its surrounding element, on rainy days, and the healthful radiation of electricity with its loads of impurities, is for a time suspended. Then rheumatic and neuralgic invalids complain of increased pain, because the damming up of the impurities of the system prevents the harmonious circulation of the nervo-electricity, and thus aggravates inflammatory symptoms; and it is for this reason that the application of the galvanic battery to such persons usually gives partial relief; by it, the system is thrown into a positive condition, or, in other words, rendered more electrified than the atmosphere, so that the radiation of impurities is renewed. No one feels as well on a rainy day, except those whose fluids radiate too much to the surface, leaving the mucous membranes dry, and such, of course, feel better while the air is moist and electrified. Catarrhal invalids, vice-versa, are made worse thereby.

For other reasons the air is not as wholesome in wet as in dry weather. When the latter prevails, the density of the air causes a rapid passing off of earthly, vegetable and animal impurities, which, owing to their vapory form, rise with such rapidity as to scarcely affect the air we breathe. But when it is damp or rainy, the air is lighter, as is evinced by the falling of smoke. One would naturally suppose that owing to the unusual presence of oxygen, it would be heavier, but it must be remembered, that hydrogen is one of the elements of water and vapor, and that it is the lightest of any known substance. When, therefore, it rains and the air is light, the gases

of decaying vegetation and animal effluvia (which are also light) mingle with the air we breathe. A popular writer, who has said a great many good things, erroneously remarks as follows:

"The amount of exhalation and effluvia which rise from the ground depends much upon atmospheric pressure. When the air is heavy, these substances are, as it were, confined to their sources, that is, they are liberated at the slowest rate; but as the barometer falls the pressure is taken off, and the miasmatic emanations rise much more freely."

A more palpable error was never uttered. It is contrary to the laws of gravitation. Investigate it any way you choose and you will find it wrong. If you suppose the miasmatic emanations *heavier* than air they remain near the ground in consequence of their own *weight*. Suppose them *lighter* and it is impossible for them to be held down by the *pressure* of the air, for the latter will then settle down under them and *raise them up*. Who ever heard of putting a flat stone on water to hold it down? No, the quotation is absurd, and contrary to fact. Miasmatic emanations are lighter than air on a clear dry day, and rapidly rise above the strata of air we breathe; but on damp and wet days, when the air is also light, miasmatic emanations rise sluggishly, and mix with the air we breathe. From this it appears that *nature* sometimes disturbs one of the chief elements of life, a fact which rather disproves the writings of some fanatics, who assert that there is no reason why a man may not live on earth for ever, if he strictly observes the laws of life and health. It is well enough to say that few men live as long as they might, for that is *true;* and I shall now proceed to treat upon matters relevant to this subject, which go to prove the fact.

If pains were taken to preserve the purity of the air we breathe, health would be promoted and longevity increased. The venous blood which enters the lungs, is in a negative state, and it depends upon the oxygen or electricity of air to electrify it, remove its carbon and perfect its arterialization. Hence the air we inhale may contain its natural constituents in their due proportions, but that which we exhale contains almost the usual quantity of nitrogen with eight or nine per cent of its oxygen replaced with an equal amount of carbonic acid. The stomach, in the digestion of food, cannot produce all the electricity which is necessary to move the animal machinery, and therefore the lungs, with their curious mechanism receive the blood from the venous system, and expose it to the electrifying

influence of the atmosphere. I may be asked why the blood is not, like the body, electrically *positive* in relation to the air. I reply that it is, when it leaves the lungs; but in passing through the arterial system it distributes its electrical properties, and returns through the vascular system destitute of that element. The lungs are very generous to the stomach and keep up a neccessary supply of electricity during the hours of sleep, when the digestive organs are permitted to take partial repose. Did ever the reader notice what long, deep inhalations a person takes while sleeping? While the stomach is enjoying rest the lungs work their utmost to keep up a supply of vital electricity, and although they exhale the useless gases with the same rapidity that they do when the individual is awake, they draw in deeper and more copious draughts of the electrifying element. The stomach being on such amicable terms with the respiratory apparatus, and having made such excellent arrangements with it to aid in doing its work during the hours of partial repose, (for the stomach never sleeps sound) the reader can see how wrong it is for him to give his stomach a job of work on going to bed, by eating a late supper, and that he has no right to complain if the digestive organs refuse to do the work, but allow the food to ferment and fill his blood and brain with inflammation. When the stomach has such perfect confidence in the integrity and industry of the lungs, it is also wrong to oblige the latter to cheat the former, by going to sleep in badly ventilated rooms, or where malaria exists, by which the system will become poisoned instead of electrified, and the stomach find its work not only undone, but itself disqualified in a measure to resume its labors. Facts go to prove that there is a greater proneness to disease during sleep than in the waking state. In Turkey and Hindostan, if a person falls asleep in the neighborhood of a poppy field, over which the wind is blowing towards him, he is liable to "sleep the sleep which knows no waking." The peasants of Italy who fall asleep in the neighborhood of the Pontine marshes are invariably smitten with fever. Even travelers who pass the night in the Campagna du Roma inevitably become more or less affected with the noxious air.

The reason of this, after what has been said, must be obvious. The stomach battery having partially suspended operations in sleep, the lungs redouble their efforts to inhale the indispensable element, and unfortunately receive it, most poisonously adulterated, and the various organs of the system, if not murdered in their slumbers.

awaken to find themselves invaded by a destructive foe. An English traveler in Abyssinia has asserted that he could live in health, in that sickly climate, by a proper selection of the situation where he slept every night.

All this argues the deleterious effects of late suppers as well as the necessity of well ventilated and healthful sleeping apartments, and people who complain of ill health while they persist in the former, and take no pains to secure the latter, are as foolish as the boy who thrust his hand into hot embers and then cried because it was burned. Let those who sleep in small rooms with windows and doors closed remember that every individual breathes, on an average, from 13 to 20 times per minute, and inhales from 13 to 40 cubic inches of air at each inspiration. Now take, as a low estimate, the consumption of air at 20 inches, and the number of inspirations at 15, and we find that in the space of one minute, 300 cubic inches of air are required for the respiration of one person, during which 24 cubic inches of oxygen are absorbed by the blood, and the same amount of carbonic acid given out. Proceed with this estimate, and we find that in one hour, one pair of lungs have consumed 1440 cubic inches of oxygen, and in seven hours, the time usually allotted to sleep, 10,080 cubic inches of oxygen have been replaced with an equal quantity of carbonic acid. The deadly effects of the latter are illustrated by the fact that a canary bird, suspended near the top of a curtain bedstead where persons are sleeping, will almost invariably be found dead in the morning. It has further been demonstrated that when there is one-half per cent. of carbonic acid in the air, it renders it unfit for the support of life. In view of these facts, how many churches, school-houses, places of amusement, factories, work-shops and dwelling houses are but the nurseries of disease. Nor is it surprising that such a great majority of tombstones in our cemeteries are inscribed with ages below two score.

Some physiological writers have said that Scrofula is often *produced* by bad air. That it is rendered contagious through the medium of the air is certain, but I am hardly inclined to believe that Scrofula would directly arise from breathing the atmosphere of a crowded room unless there were persons in the apartment affected with it. Scrofula and all diseases are rendered in a measure contagious by the diseased animal vapors from the lungs and pores of persons affected with them. These vapors mingle with the natural ingredients of air in a confined room, and are conveyed to the blood of others through

the respiratory apparatus, and hence, impure air may, in one sense, be said to produce Scrofula. Certain it is, that it will convey the disease to those not affected with it, if it is rendered impure by the presence of scrofulous persons. Every man and woman is constantly perspiring or radiating from the skin, and exhaling from the lungs, waste animal matter, and if a person is diseased, these vapors partake of the nature of that disease.

Inasmuch, then, as there is at least one diseased person to every ten sound ones, in every community, the reader can see how liable he is to contract disease in a crowded lecture or show-room. The best ventilation does not render us entirely safe, but improper ventilation makes the spread of disease positively certain. Prof. Faraday gives his experience regarding the atmosphere of crowded rooms, as follows:

"Air feels unpleasant in the breathing cavities, including the mouth and nostrils, not merely from the absence of oxygen, the presence of carbonic acid, or the elevation of the temperature, *but from other causes depending on matters communicated to it from the human being.* I think an individual may find a decided difference in his feelings when making part of a large company, from what he does when one of a small number of persons, and yet the thermometer give the same indication. When I am one of a large number of persons, I feel an oppressive sensation of closeness, notwithstanding the temperature may be about 60° or 65°, which I do not feel in a small company at the same temperature, and which I cannot refer altogether to the absorption of oxygen, or the inhalation of carbonic acid, and probably *depends upon the effluvia from the many present;* but with me it is much diminished by a lowering of the temperature, and the sensations become more like those occurring in a small company."

Were mankind generally aware of the effects of the diseased radiations and exhalations of invalids, popular lecturers and preachers and favorite dramatists and negro-dancers, could hardly induce the convocation of the crowded audiences that they now do, and people would be as particular in the air they breathe as the water they drink. The use of stagnant waters could not be more deleterious to the nervous and vascular systems than the inhalation and absorption of vitiated air. Still most men are regardless of the latter, while they throw out with disgust, a glass of water which has sediment or color.

The introduction of stoves for purposes of heat, has been as injurious to health as it has been universal. Air to be healthful

must possess a certain amount of moisture (which is more electrical than dry air) to prevent a too copious radiation of the electrical elements and fluids of the body. The effect of stove heat, as every one knows, is to render the atmosphere dry. But if this were the only objection to the use of stoves, some means might be devised to overcome it. Says Prof. Youmans: "While, in point of economy, stoves are most advantageous sources of heat, yet in their effects upon the air they are perhaps the worst. We saw that in the stoves called *air tight*, the burning is carried on in such a way that peculiar gaseous products are generated. These are liable to leak through the crevices and joinings into the room. Carbonic oxide gas is formed under these circumstances, and recent experiments have shown that it is a much more deadly poison than carbonic acid. The slow, half smothered burning of these stoves requires a feeble draft, which does not favor the rapid removal of injurious fumes. Besides, carbonic acid being about half as heavy again as common air, must be heated 250° above the surrounding medium to become equally light, and still higher before it will ascend the pipe or flue. If the combustion of the fuel is not vivid, and the draft brisk, there will be regurgitation of this gaseous poison into the apartment." The same writer continues: "Probably all stoves, from their imperfect fittings, are liable to this bad result. Hot-air furnaces, also, have the same defect. They are cast in many pieces, and however perfect the joinings may be at first, they cannot long be kept air-tight, in consequence of the unequal contraction and expansion of the different parts under great alternations of heat. Combustion products are hence liable to mingle with the stream of air sent into the room." Dr. Ure also remarks: "I have recently performed some careful experiments upon this subject, and find that when the fuel is burning so slowly as not to heat the iron surface above 250° or 300°, *there is a constant deflux of carbonic acid into the room.*"

To warm an apartment there is nothing like the old-fashioned fireplace, and all who have ever had the felicity of warming themselves before it, will join with me in this assertion. A fire on the hearth does not heat the air, but, as a writer truly remarks, "*the heat rays dart through it* to warm any object upon which they may fall." The sun passes his floods of light through the atmosphere without warming it a particle. Air is made to be *breathed*, and we again discover Providential wisdom in the arrangement by which the sun warms us, without disturbing, in the slightest degree, the respiratory medium.

But if we heat the *air itself*, we at once destroy the natural equilibrium of its composition, and so change its properties that it becomes more or less unpleasant and prejudicial to health."

Modern grates are very good substitutes for fire-places, and should take the places of stoves, particularly in churches, theatres and show rooms, where the animal effluvia of a crowded assemblage are sufficient to render the air vitiated without the further addition of stove or furnace heat.

Too much care cannot be taken for the maintenance of the natural purity of air. School-houses, churches, theatres, dwellings and factories, should be daily aired, in cold as well as hot weather. The permanency of impure air in a close building, is forcibly illustrated in a recent account given by the American Medical Gazette, of the vault of the old Cathedral Church of Bremen. Hundreds of years ago, when the old church was built, the plumbers occupied the vault for melting and preparing materials for the roof, and since that time its atmosphere has possessed the peculiar property of preserving from decay all bodies placed therein. That paper remarks—

"Visitors are shown eight human bodies, besides a number of cats, dogs, monkeys, birds, etc., all of which, by mere exposure to this atmosphere, have become dried and free from all offensive effluvia; resembling in appearance coarse parchment.

"The body nearest the door is that of an English major, said to have lain there one hundred and eighteen years.

"The second that of a German student, who lost his life in a duel. The hard, dry flesh, still shows the sabre wounds on his throat and arm. His body has been here one hundred and seventy years.

"The third, that of a Swedish Countess, whose body has remained free from the lot of common mortals for one hundred and forty years.

"The fourth, that of a Swedish General, who was killed in the "Thirty Years' War," and whose throat still exhibits the mark of the wound of which he died.

"The fifth is that of his aid-de-camp, who lost his life at the same time, by a cannon ball striking him in the side. The destruction of the parts is plainly visible.

"The sixth body is that of a workman, who fell from the steeple of the church when near its completion—four hundred years ago—and broke his neck. Owing to this accident, the peculiar properties of the vault became known; for the body of the deceased workman was laid in this vault for a few days, and, having evinced no signs of

decomposition, the singularities of the fact induced the authorities to permit it to remain, and here it has remained during all that time.

"The seventh is the body of an English lady, who died 130 years since of a cancer on the lower jaw; the ravages of the disease are still perceptible in the ulcerated flesh.

"The eighth is the body of a working man, who has lain here for sixty years.

"In a marble sarcophagus, standing in the middle of the vault, are said to repose the mortal remains of the Swedish Chancellor, Van Englebrechten; but they are not permitted to be exposed to public view, on account of some still surviving relative of the family.

"Each of these bodies retains to a great degree the appearance peculiar to itself in life. Thus, the Swedish General was a short round-faced man inclined to corpulency; his aid-de-camp was a slender, well-proportioned man, in the prime of life. As in general appearance so also in facial expression do these bodies differ; the parchment-like skin, though drawn tightly over the bones, still shows something of the manner in which the muscles beneath once worked.

'No other part of the church possesses this peculiar atmosphere, and we can only suppose that the entire chamber became so surcharged with lead, that it has continued ever since to give forth vapors, which, forming an antiseptic chemical compound of lead, have operated upon the cadavera exposed to its influence."

Now this condition of the air is well enough for dead bodies but baneful enough to live ones. Mechanics who work in metal can see from this, how prolific of diseases their work shops may become by being daily and nightly closed, as they frequently are in winter. There can be no doubt, too, that churches, closed up as they generally are, at the end of every Sabbath, retain a great deal of the diseased emanations of unhealthy visitors, which cannot be removed by a day's airing towards the end of the week when sextons usually sweep and ventilate the buildings. Churches should, therefore, be aired immediately after, as well as just before the day for services, and an airing every day would be still better.

Those who are struck down by the hand of disease and marvel at the *cause* of their afflictions, because, perhaps, they have been regular in their habits of eating, drinking and sleeping, may find in this essay a solution of the secret. That it may have a happy effect upon mechanics who build houses; upholsterers who furnish them; ser-

vants and housewives who have the care of them; the artizan in the workshop; the pale faced woman in the cotton factory; the hotel keeper who entertains lodgers; the conductors of railways; the parson; the sexton; the dancer; street commissioners; the frequent visitors of cemeteries; and the mothers of large families, is the hope of the author.

4TH. THE CLOTHES WE WEAR.

It is almost useless to speak of the evils of dress If fashion should decree that men and women must adorn themselves in their grave clothes, the mandate would be cheerfully obeyed. In these days of "fuss and feathers" an ephemeral life of gaiety and glitter is esteemed more desirable than a long life of quiet usefulness. But inasmuch as the clothes we wear exert a mighty influence on the health of the vascular and nervous systems, this chapter would be incomplete without a few remarks on the subject. Reference to the pernicious effects of tight lacing will be deferred for another essay. In this I shall turn my attention to other evils equally destructive to health. Tight clothes of any description are injurious. Knit shirts, knit drawers, tight stockings, tight pants, close fitting vests and waists, tight shoes, tight boots and tight caps and hats, all tend to obstruct the electrical radiation which carries off the impurities of the system. So long have these habits of dress been indulged in, that a very large proportion of the men and women of civilized countries may be said to be "hide-bound;" that is, the pores of the skin have been closed and gummed up by the noxious exhalations of the skin which have not been permitted to pass off naturally. Were it not for offending the prudish modesty of many who might be termed *doubly extra civilized*, or, in the language of flour dealers, "extra superfine," "superlative," &c., I should advocate a return to the breech-cloth, hoping thereby to get some one to meet me half way. I may yet, before I leave this subject.

With the exception of savages, who go nearly or quite naked, the semi-barbarians who envelop but a small portion of their bodies in clothing, and the Turks who wear loose pants, tunics, robes, &c., there are no people in the world who approach health and comfort in their fashions of dress. The indigent and mercantile classes of the Ottoman Empire particularly, indulge themselves in a peculiarly comfortable costume. Fig. 12 represents a Turkish fruit vender. At least a couple of pairs more of brawny legs with their haunches

could be easily stowed away in his loose breeches, and his sleeves, etc. correspond with the expansiveness of his nether habiliments. There is some chance here for electrical radiation to go on unobstructedly.

Fig. 12.

THE COSTUME OF A TURKISH FRUIT VENDER.

The invention and adoption of knit shirts and drawers have done much to destroy the purity of the blood and the harmonious action of vital electricity. The use of flannel as an article of under dress in

changeable climates is certainly commendable. But to obtain the benefit which wearers usually seek, i. e. health, such garments must be made loose, and changed often. Knit shirts usually set close to the skin, and very often draw so tight around the chest as to prevent a free action of the lungs. I have frequently had occasion to examine consumptive invalids, who were hastening decline by wearing flannel shirts so closely fitted to their skin that Indian rubber could not have been much more objectionable. Flannel shirts should be made up from the cloth, and loose enough to admit a free circulation of air between them and the skin. It is well to wear two during the week, changing every alternate day. Every other day hang the one last worn in the air and sunlight, so that the impurities which it may have absorbed can pass off.

In this connection I would not omit to warn invalids against the use of plasters. Almost daily am I consulted by those who have been in the habit of wearing them more or less for years. "But," says one, "they are recommended by my physician." Shame on your physician! If he knows the offices of the pores of the skin, he is guilty of willful malpractice; if he does not, he ought not to be your physician. I know that by thus speaking I shall incur the maledictions of the "regulars," and not a few of those who call themselves "reformers," but what do I care—I have them already. There are said to be nearly *three thousand* pores in every square inch of the human body, and there are from seven to ten square inches in an ordinary sized plaster. Now think, for one moment, of the effects which must ultimately ensue from plastering up *twenty to thirty thousands* of those useful little orifices through which the electrical radiations of the system carry off the noxious and waste matter of the blood. True, you feel a temporary suspension of pain, but do you not know that skillfully prepared embrocations will produce this happy result as well, while they allow the machinery of nature to go on uninterruptedly? When an invalid comes to me plastered up from the top of his neck to the extremity of his spine, I am invariably reminded of the way in which some South Americans kill prisoners. It is at Monte Video, I believe, that they sew them up in a wet hide, leaving only the head and neck exposed to the vitalizing influences of the atmosphere. When the hide becomes dry it sticks just about as close as a "pitch plaster," and the unfortunate victim dies a slow, but excruciating death. Why, "Mr. Doctors," (as the Germans sometimes call the members of our profession) do you not

know that the pores are of as much importance to the human system as the safety valves to the steam engine? The pores are actually safety valves to the animal machinery, and the Divine architect has not made *one* more than is necessary. Do not, then, delude the suffering victim to disease, who has already more noxious and health-destroying matter in his system than he can carry, with the hope that a plaster can be of any possible benefit to him. If he has pains and you cannot cure them with unexceptionable remedies, pass him over to some of your brethren who can. "There is a balm in Gilead, and a physician there."

Over-coats made of the skins of buffaloes are extremely warm in cold climates in winter, and rubber coats in all climates in rainy weather. Garments of both descriptions are unhealthy, because their texture is of such a nature as to prevent the escape of the insensible perspiration. They are, undoubtedly, comfortable for a day, but their injurious effects may last for a life-time.

Much has been said for and against low-neck dresses for ladies. Some physiologists, even, have raised their voices against them, and pronounced them the cause of consumption in many cases. That ladies may and often do take cold by suddenly changing their costume from high to low neck, I will not gainsay. But that does not prove the latter style injurious; but simply that an instant change from one to the other is productive of evil. On the contrary, I believe that a general adoption of low-neck dresses by the ladies, would cause a decrease of that terrible disease among their sex. The exposure of the neck, I have found to be highly efficacious in lung and bronchial diseases. By exposure it soon becomes

Fig. 13.

A HEALTHFUL NECK DRESS.

toughened like the hands and face to the changes of weather. Then, too, the pores of the skin have perfect freedom to perform their offices, whereas the high-necks usually set as close as the skin. Ladies should be cautious in the spring when they change from high to low, and then wear no other but low-neck dresses till cold weather sets in again. It must be borne in mind that constant or occasional changes are what produce mischief.

The use of fur tippets by ladies, and comforters and fur collars by gentlemen, are a great source of bronchial difficulties, and ought (though I suppose will not till fashion says so) be abandoned. By the use of such superfluities the neck becomes tender, and liable to affections on the slightest change of weather. Many cases of bronchitis may be entirely cured by the simple abandonment of neck cloths. I have practically tested this theory and with satisfactory results.

Second hand clothing is a medium through which many an aristocratic disease is conveyed to poor people. A wealthy invalid who gives his coat to a poor man bestows no blessing. No man can wear a garment for one week without imparting to it a portion of himself, and if he be diseased his garment is also diseased. A dog will recognize his master's clothes by the smell, and I have seen those whose clothes any body with less acute olfactories could recognize by their odor. There is a perfectly simple and philosophical solution of this phenomenon. The electrical radiation of the impurities of the system, commonly known as insensible perspiration, enters the minutest threads of the cloth, and an old coat and pair of pants contain many ounces of waste animal matter from the body of the wearer. Bring these in contact with the absorbing pores, and a person is at once innoculated to a certain degree with the noxious matter contained in them. Syphilitic and other venereal diseases are frequently transmitted in this way, and other complaints, probably quite as often, only the latter are not as immediately detected as the former.

Persons should never wear their deceased relatives' clothes, unless they consist of articles which can be thoroughly washed, and then it is doubtful if they can be entirely cleansed of the diseased radiations which must have taken place weeks and perhaps months prior to the last sickness of the wearer. Although individuals of robust constitution often appear well till thrown at once on a bed of sickness, there are unhealthy conditions of the system which always precede acute attacks and render the clothing unfit for the use of others.

Some philosophers and reformers have recommended a return to the fashion which the God of nature introduced before the fall of Adam, i. e. nudity. According to an account given in a late number of the *Dublin Evening Mail*, the experiment of ascertaining whether clothing can be dispensed with, is actually being tried on a child in Ireland. That paper remarks as follows:

"The subject of the costume of the ancient Britons has often been discussed; it has been asserted that they were naked. Those who opposed that view, adduced as reasons the coldness and variable nature of the climate. The question has been set at rest by an experiment which has recently been made on a child at St. Anne's, Blarney, near Cork. The child is 14 months old, and is the son of Mr. ——, who determined to ascertain what the human frame would bear. The child is perfectly naked night and day; he sleeps without any covering, in a room with the thermometer at 38 degrees; from this he goes into a bath 118 degrees; he sometimes goes to sleep in the bath; he is perfectly indifferent to heat or cold, is lively, active, cheerful and intelligent; his appearance constantly reminds the observer of the best efforts of our best painters and sculptors Therein is the *beau ideal;* he is the reality. His simple, natural, easy, graceful and ever varying postures are charming. He arrests the attention and commands the admiration of all who see him. The peculiar character of his skin is very striking; it is exquisitely healthy and beautiful. It may be compared to the rays of the sun streaming through a painted window.

"During the progress of the experiment he has cut three teeth without manifesting, any of the disagreeable symptoms usual to children in that condition. He appears to be quite insensible to pain Occasionally he has an ugly fall, but not a sound escapes from his lips His manners, demeanor and general behavior are equally striking. His mode of saluting a person is to take the hand in a graceful manner and kiss it. He is under the complete control of his father, and is perfectly quiet during meals, and also whenever he is told to be so. He goes about all day amusing and occupying himself in a quiet way. No one accustomed to children would know there was a child in the house. So incredible are these results that some of the residents of St. Anne's regard the whole matter with mingled feelings of horror, amazement and wonder.

"He has two meals — generally boiled rice, which is put on a napkin on the ground, and he picks it up to the last grain. After

that, wheaten flour cake with butter, and a cup of milk which he drinks. While eating his rice he looks a different being; there is at once a pride and an enjoyment of performance. He has the air of an orator addressing an audience.

"During the day he goes to sleep when he likes, merely lying down on the floor. The attitude he assumes in sleeping is that of a Mussulman making prostrations—on his knees with his hands spread out before him which could not be if he suffered from fatigue; but his muscles are too hard for that. By this means he concentrates the caloric in his stomach, and so it is indifferent to cold; however cold, the limbs (and they get frightfully cold to the touch) are never numb, being, on the contrary, mottled red; the loins are always warm. The problem he presents physiologically is this; a development of the nerves producing pleasurable sensations, and a corresponding deadening of those of the contrary. The intensity of the enjoyment which he derives from contact with the skin, is only equalled by the insensibility of the flesh. We have never known him since his exposure to extreme cold to cry from pain."

This appears like a cruel experiment, but I question whether that parent inflicts as much suffering on his child as the majority of parents do on their children by loading their little bodies with unnecessary, and too close-fitting raiment; and, I further question, whether this child in a state of nudity, may not grow up with a far better and healthier physical organization than will any of his little mates in clothes. The experiment, so far, is really a triumph, and, after all, only proves what physiology, deeply studied, teaches. It is quite a mistaken notion that a great amount of clothing is necessary for comfort and health in cold weather. The ancient Spartans who were distinguished for their physical powers and beauty, were allowed but scanty clothing in childhood, even in the depth of winter. Our extreme sensitiveness to changes from heat to cold is merely the result of tenderness induced by long habits of pernicious dress.

In conclusion, I would say, that if costume is indispensable, there are three rules to be observed to secure that which is healthy, viz: 1st. Cover no more of the body than the dictates of sound modesty require. 2d. Let the clothes be made of new material, and of such as will allow the uninterrupted egress of the bodily impurities. 3d. Mantuamakers and tailors must make clothing to hang loosely about the body. When men and women become wise enough to observe

these, the adoption of the more primitive style of our first parents, will appear less called for.

5TH. WEALTH.

Wealth, with its attendant dissipations, is a prolific source of nervous derangements and blood impurities. Many physiologists have described money as the "elixir of both mind and body." Dr. Hall, in his Journal of Health remarks as follows:

"This idea of the hygienic value of money on men is strikingly illustrated in the report of M. Vallerme, secretary of the poor house commissioners in Havre, where the average age of the rich is twelve years greater than that of the poor. Thus, 1088 prosperous persons died at an average age of 42 years; 4791 of the middling classes at 29 years; and 19.849 poor at 20 years."

Now these statistics, at first glance, look like "knock-down arguments;" but those who argue from them that wealth is a promoter of health and longevity, overlook one important consideration which strikes at the very root of their philosophy, to wit: *health begets wealth, instead of wealth begetting health.* It must be remembered that a large proportion of mankind is born into the world with hereditary disease or enfeebled constitution, which disqualifies them for the active pursuits of life, and consequently, unless they become heirs to wealth they must live and die poor. Look over our country now, and learn the history of its wealthy men; what do we find? two-thirds at least have been the architects of their own fortunes. They have amassed their wealth by that indomitable perseverance and industry which they could only have maintained under the encouragement of vigorous physical organization. What chance has the invalid to gain wealth, or even a competency? He is interrupted in his business pursuits by the visitations of disease, and the harvests he may reap during the intervals of comfortable health, are at once absorbed in the expenses of sickness which follows. If, as the statistics indicate, the average age of wealth over poverty is only twelve years, the argument is in favor of the latter; for if, with good health to start with, and subsequent wealth to enable them to live as they choose, rich people cannot exceed an average of twelve years over a class, a majority of which is born in sickness and physical deformity, we may justly conclude that wealth, with its usual dissipations, shortens the lives of its possessors. Dr. Hall has fallen into

the same error that many other physiological writers have in treating on this subject.

Men who have been gifted with that mental and physical energy united with extraordinary powers of endurance, which has enabled them to stem with success the opposing currents of life, ought to live from 20 to 50 years longer than the sickly crew who follow in their wake with spirited oars to-day, and exhausted strength to-morrow. But it appears that they can only average twelve more, and probably these are obtained from the extraordinary longevity of the minority of wealthy men, who have attained remarkable age in consequence of an adherence to temperate and industrious habits, unallured by the vices of wealth.

A *few* men use riches as if they were a loan from God—strewing the paths of indigency and suffering with blessings; *many* men value riches only because they enable them to live in sluggish idleness—to glut their bellies with besotting wines and rich viands—to gratify in full measure their stimulated passions, and dazzle the world with glittering gew-gaws. The former possess placidity of mind and harmony of body; the latter, mental uneasiness and physical debility, and from the dissipations of these arise the common evils of wealth. The mind, under constant excitement, the blood hot with excessive stimulus, and the muscles paralyzed with habitual inactivity, cannot fail to destroy the tone of the nervous and vascular system.

There is a happy medium between wealth and poverty, which promotes physical health and social comfort, and beyond this boundary 'twere well if none could pass. Inasmuch as man can carry nothing with him at the close of life except a record of good works, he who possesses a competency during life, enjoys all the pleasures that money can buy without surfeit. But some wish for wealth to be enabled to do good. An excellent lesson for such, may be found in the life and sayings of Socrates: A Grecian youth, who saw the errors and follies of the people, and wished to reform the world, exclaimed :—"O that I were rich, and famous as an orator, I would move the world so soon! Here are sins to be plucked up, and truths to be planted. O that I could do it all! I would reform the *whole world*—and that so soon." Socrates, hearing the youth, said: "Young man, thou speakest as silly women. This gospel in plain letters is written for all—'LET HIM THAT WOULD MOVE THE WORLD, MOVE FIRST HIMSELF.' It asketh neither wealth nor fame to live out a noble life. Make thy light thy life; thy thought thy action. Others

will come round, and follow in thy steps. Thou askest riches to move the world. Foolish young man, as thou art, begin now. Reform thy little self, and thou hast begun to reform the world. Fear not, thy work shall never die."

The general tendency of wealth is not Benevolence, but prodigality, selfishness, idleness, and gluttony. There is more true benevolence exhibited by the poorest than the wealthiest classes. Hon. Geo. S. Hilliard has beautifully remarked—"I confess that increasing years bring with them an increasing respect for men who do not succeed in life, as those words are commonly used. Heaven is said to be a place for those who have not succeeded on earth; and it is surely true that celestial graces do not best thrive and bloom in the hot blaze of worldly prosperity. Ill success sometimes arises from a superabundance of qualities in themselves good—from a conscience too sensitive, a taste too fastidious, a self-forgetfulness too romantic, a modesty too retiring. I will not go so far as to say, with a living poet, that the 'world knows nothing of its greatest men,' but there are forms of greatness, or at least excellence, which 'die and make no sign;' there are martyrs that miss the palm, but not the stake, there are heroes without the laurel, and conquerors without the triumph."

The view I take of the *physical* effects of riches is sustained by Dr. Channing. He gives it as his opinion that the difference between the rich and the poor in regard to physical suffering is not as great as has been imagined, in support of which he says: "That some of the indigent among us die of scanty food is undoubtedly true; but vastly more die from eating too much than from eating too little; vastly more from excess than from starvation. So as to clothing, many shiver from want of defence against the cold; but there is vastly more suffering among the rich from absurd and criminal modes of dress which fashion has sanctioned, than among the poor from deficiency of raiment. Our daughters are oftener brought to the grave by their rich attire, than our beggars by their nakedness. So the poor are often over worked; but they suffer less than many among the rich who have no work to do nor interesting object to fill up life; to satisfy the infinite cravings of man for action. According to our present modes of education, how many of our daughters are victims of ennui, a misery unknown to the poor, and more intolerable than the weariness of excessive toil."

6TH. BAD HABITS OF CHILDREN AND YOUTH.

Many of the blood and nervous derangements of adult age are but the harvests of seeds sown in childhood and youth. The injurious habit in which children are usually indulged, of devouring meats and other stimulating food, has already been discussed under the head of "The Food we Eat." I shall herein treat of other habits common to immature age, which exert an influence more or less destructive to health and longevity.

Fig. 14.

BAD POSITION IN SITTING.

At school children acquire many injurious habits, one of which is illustrated in Fig. 14. The effect of this posture is to cramp the lungs, thereby preventing the usual quantity of electrifying air from coming in contact with and arterializing the venous blood. It also curves the spine, the great nervous trunk, and in a measure interrupts the harmonious distribution of the nervo-electric fluid. Hence, both blood and nervous derangements are induced thereby. Parents and teachers are not particular enough in observing and criticising the posture of the school boy. Many a case of spinal disease and pulmonary consumption had its origin on the bench of the school-room Seats should always be provided with suitable backs for the support of the spine, and children should be required to maintain a correct posture.

A great error is generally committed by parents in sending their children to school at an age so tender that the development of the mental faculties seriously interferes with the vigorous formation of their physical parts. A child of three or four years of age seated on a bench in school, is no more in his place than a twelve years old boy would be on the judge's bench in a court of chancery. What does he care about letters or syllables? What he learns is not the result of a gratification of a thirst for knowledge, but of a severe and health destroying discipline, which effects a forced growth of the mind at the expense of the body. The vital nervo-electric forces, withheld from the generous development of the chest, the vital organs and the muscles, are consumed in nourishing and enlarging

the brain. In art mankind exhibit common sense. The master builder who is about to decorate his grounds with a superb edifice, first lays a strong and perhaps an inelegant foundation, upon which to raise the monument of his superior skill in architecture. So the parent, who wishes his child to occupy a commanding and useful position in society, when he shall have arrived at the stature of manhood, should take pains to secure for him a physical foundation which can firmly sustain the mental superstructure. To this end children should be kept out of school and allowed to dig play-houses in the sand, play horse with strings, jump ropes and roll hoops until their little limbs become hard and chests broad, and, too, until they evince some desire for study. If this desire is manifested before the age of five or six, it should not be encouraged. The first six and even ten years of boyhood are none too long to prepare the physical trunk for the nourishment of mental growth. It is related of a gentleman now occupying a seat in the United States Senate, that his wife taught him his letters after marriage, while he prosecuted his calling as a journeyman tailor. But advancing step by step, reading with avidity, studying closely, and striving constantly to inprove his condition, he has at last attained one of the most eminent positions in the gift of his countrymen. Nor is this an isolated instance of the rapid mental progress of a mind after the body had gained, not only strength, but maturity. History is embellished with such. The great Patrick Henry was mentally a dull boy, and hated books, but when the flowers of his mental garden, enriched by the nutriment of a strong and matured physical organization, did bloom, the whole country was intoxicated with their fragrance, inspiring the American patriots with an enthusiasm which naught but success could satiate. In the face of such facts, let not parents make intellectual prodigies and physical wrecks of their children. If they have the germ of greatness in them, there is no danger but it will become developed by the time society, the state, and the nation have need of them.

Colored candy eating is a habit in which many parents indulge children to an extent calling loudly for the warning of the faithful physician. The innocent darlings are almost ready to bound out of their shoes, when papa or mamma brings home from the confectioner a sweet little package of beautiful striped, red, blue, green and yellow sugar-plums; of course they are, for they have the most implicit confidence in their dear parents, and know they will not

give them any thing which will injure them! But parents may not know that there are fatal poisons concealed in the pretty spiral streaks which ornament the confectionary, and papas are so absorbed in business and mammas in fictitious literature, it is a chance if they either of them ever find out. So long as no immediate fatalities occur to the little ones, it is supposed that such indulgences are harmless. As in excessive meat eating, and other bad habits, nature does not cry out at once, and as a consequence physical injury therefrom is not dreamed of. But ignorance does not shield the juvenile or adult from the deadly consequences of pernicious habits, which gradually undermine the constitution and induce premature decay.

A brief specification of some of the drugs used for coloring candies, I trust, will suffice to show parents who peruse these pages, that however pretty sugar-sticks and toys are to look at, they are entirely unfit to enter the susceptible little stomachs of children. Reds are often obtained from red lead, vermilion or bisulphuret of mercury, bisulphuret of arsenic, Iodide of mercury and Venetian red. Greens from false verditer or subsulphate of copper and chalk, emerald green or arsenite of copper, Brunswick greens or oxychlorides of copper, verdigris or diacetate of copper, mineral green, green verditer or subcarbonate of copper, and mixtures of the chromates of lead and indigo. Yellows from gamboge, massicot, or protoxide of lead, the three chrome yellows or chromates of lead, yellow orpiment, or sulphuret of arsenicum, King's yellow or sulphuret of arsenicum, with lime and sulphur, Iodide of lead, sulphuret of antimony or Naples yellow, yellow ochre. Blues from indigo, cobalt, Antwerp blue, a preparation of Prussian blue, Prussian blue, or ferrocyanide of iron, smalt and blue verditer or sesquicarbonate of copper. Litmus is also used in coloring blue, which, if unadulterated, is harmless; but it is frequently adulterated with common arsenic and peroxide of mercury. Browns are often obtained from umber and Vandyke brown, while purples are generally made by mixing some of the objectionable minerals used to produce other colors.

"It may be alleged by some," says Hassell, "that these substances are employed in quantities too inconsiderable to prove injurious; but this is certainly not so, for the quantity used, as is amply indicated in many cases, by the eye alone, is very large, and sufficient, as is proved by numberless recorded and continually occurring instances, to occasion disease and even death. It should be remembered, too, that the preparations of lead, mercury, copper,

and arsenic, are what are termed cumulative, that is, they are liable to accumulate in the system, little by little, until at length the full effects of the poisons become manifested."

Continues Hassell—"That deadly poisons should be daily used for the sake of imparting color to articles of such general consumption as sugar confectionary—articles consumed chiefly by children, who, from their delicate organization, are much more susceptible than adults—is both surprising and lamentable. It is surprising on the one hand, that the manufacturers of these articles should be so reckless as to employ them; and, on the other, that the authorities should tolerate their use."

Many confectioners do not sufficiently understand the chemical properties of the colorings they use, to know their poisonous effects. They have learned the trade of candy making, but have never stopped to enquire into the nature of the articles used for ornamenting their pretty drops, sticks and toys. For this reason, if no other, parents should not feed their children colored candies. Those which are not colored, will please the little folks quite as well, if they do not see the others.

Candies flavored with the ordinary essences, such as peppermint, wintergreen, lemon, sassafras and rose, are also less hurtful than those which are flavored with almond, pineapple and peach. The latter often contain fusil oil and prussic acid.

From the foregoing remarks, the reader will see that cake ornaments, composed as they are, of colored confectionary, are equally objectionable, and should not be eaten by child or adult. If they are necessary as ornaments, no one is obliged to eat them.

Going "barefoot," a very common practice among the children of the indigent in cities, and those of all classes in the country, is a common cause of blood diseases. In large towns the streets and gutters are the receptacles of filth of every description, a partial specification of which would embrace the diseased expectorations of men and animals, dead carcasses of flies, cockroaches, rats and mice, killed by poison, poisonous chemicals and acids swept from drug stores and medical laboratories, filthy rags which have been used in dressing foul ulcers, mucus from syphilitic sores, etc., the bare touch of which is polluting. But when, as is almost daily the case, the barefooted urchin "stubs his toes" against a projecting stone, rupturing the skin, and then brings his bleeding feet in contact with this heterogeneous compound of mineral, vegetable, and animal poisons, the

blood is sure to receive an impure inoculation which, unless eradicated by vegetable medication, clings to the individual through life, rendering him ever a susceptible subject for epidemics, colds and chronic diseases. In villages, although less exposed to corrupt animal inoculations, barefooted children are liable to have the purity of their blood contaminated by contact with poisonous plants, which abound in country places. And merely a thoughtless gallop through stubble fields, where wheat or oats have been harvested, may impart to the blood of the barefooted child, a humor which is sooner or later to cause his death. Because serious effects do not manifest themselves immediately, many parents flatter themselves that the practice is not attended with bad results. But blood impurities are generally insidious, and produce disease when it is least expected.

I do not believe God ever intended that every child should pass through the retinue of diseases which is considered the lot of childhood. All tender mothers appear to think that their children must have the mumps, whooping cough, measles, and scarlet fever, and the sooner the "darlings" have them the better. Now is it reasonable to suppose that human nature requires these diseases as *settlers*, the same as coffee requires eggs or codfish-skin? If children are brought up properly, they may escape all these diseases. What, with stimulating animal diet, poisoned confectionary, bare feet, and so forth, by which the vital fluids of the system become rivers of death, can be expected but nursery diseases! *Corrupt blood* is that which renders the child a ready victim to a whole train of juvenile ills.

A habit which is considerably prevalent in almost every family, of allowing children to sleep with elder persons has ruined the nervous vivacity and physical energy of many a promising child. Those having dear old friends, whose lives they would like to perpetuate at the sacrifice of their innocent offspring, alone should encourage this evil; but every parent who loves his child, and wishes to preserve to him a sound nervous system, with which to buffet successfully the cares, sorrows and labors of life, must see to it, that his nervous vitality is not absorbed by some diseased or aged relative.

Children, compared with adults are electrically in a positive condition. The rapid changes which are going on in their little bodies abundantly generate and as extensively work up vital nervo-electric fluids. But when, by contact for long nights with elder and negative persons, the vitalizing electricity of their tender organizations is given off, they soon pine, grow pale, languid and dull, while their

bed companions feel a corresponding invigoration. King David, the Psalmist, knew the effects of this practice, and when he became old got young women to sleep with him that his days might be lengthened Dr. Hufeland, the German physiologist, attributes the frequent longevity of schoolmasters to their daily association with young persons.

Invalid mothers often prolong their existence by daily contact with their children. I once knew a woman who, by weak lungs and mineral doctors, had been prostrated with incurable consumption. Her infant occupied the same bed with her almost constantly day and night. The mother lingered for months on the verge of the grave, her demise being hourly expected. Still she lingered on, daily disproving the predictions of her medical attendants. The child, meanwhile, pined without any apparent disease. Its once fat little cheeks fell away with singular rapidity, till every bone in its face was visible. Finally it had imparted to the mother its last spark of vitality, and simultaneously both died. I saw it recently stated in a newspaper that a man in Massachusetts had lived forty-one days without eating anything, during which period he had been nourished altogether by a little cold water, and "by the influences absorbed by him while daily holding the hand of his wife."

Many old men who marry young wives are aware of the nourishing effects of such unequal unions, and are not such "old fools" as many pronounce them, while the young women who become their wives are bigger "young fools" than they are ever reputed to be. Some old ladies, tenacious of life, and wickedly regardless of the welfare of others, often coax children or compel their servants to sleep with them. Parents, therefore, who feel that affectional devotion to their children which is usually instinctive, should exercise vigilance and protect their offspring from a robbery which can never be repaired. Great care should also be taken to have diseased and healthy children sleep in separate beds. Although the effect of putting them together is favorable to the former, it is attended sometimes with fatal and always injurious results to the latter. It is better, in raising a family of children, to preserve in health a rugged child, even if its puny brothers and sisters die, than to distribute his full measure of vitality among two or half a dozen, and thus place him on a debilitated level with the whole.

Masturbation, or self-pollution, is a very prevalent vice among both children and youth. The amative passions, prematurely deve-

loped by stimulating diet, importune gratification which cannot be granted in the manner prescribed by nature, because marriage is an institution only fitted for adults. Ignorant of the physiological effects of resorting to artificial means, and goaded on by the perusal of popular romances, the unsophisticated youth falls an easy victim to a habit which taps the very fountains of nervo-electric vitality. It has always been surprising to me to see some parents allow their tables and book shelves to become loaded with yellow-covered literature, while they carefully exclude every book which treats on physiological matters. If Mr. Beelzebub should write out a prescription for the ruination of young men and women, and in its punctuation use a grave for a period, its adoption could prove no more fatal than has the prescription of civilization. Am I asked what is the latter? Then I will tell you. In utero-life, before the child has breathed the atmosphere of this world, the treatment begins. Excessive sexuality between the parents imparts to the unborn child a too great preponderance of the animal organs. After its birth this excess continues, and through the milk which it sucks from its mother's breast these organs derive immoderate nourishment. Before the natural fountains are dried up, animal broths are introduced into its active little stomach, and ere it reaches the age of three years it daily gluts itself with the diet of a full grown man. Coffee and steak for a three years old child! Next it is learned to read, and at the age of ten or fourteen years, while it feeds its stomach with highly seasoned meats and drinks, it quenches its mental appetite with fictitious romances. Is it strange then that masturbation is a prevalent vice? Some of my readers may not think it is. This only proves their physiological ignorance. Five children in every ten over twelve years of age bear the marks which the disgusting vice stamps on the countenances of its victims. Children of both sexes are included in this estimate, although the evil is not as prevalent with girls as with boys. Should I speak of boys only, I would say, at least, seven of every ten were addicted more or less to it. The fatal consequences of masturbation are painfully apparent when viewed from the observatory of the medical profession. It acts slowly but powerfully in destroying the harmony of the nervous system, producing ultimately a great variety of diseases according to the idiosyncrasies of its slaves; but most commonly insanity or consumption. I am daily written to by invalids from all parts of the country, who freely confess the cause which led to their ill health.

Although physiological works generally fail to explain the reason why masturbation is worse in its consequences than sexual indulgence, most of them are good for something, because they serve as a warning to thoughtless youth. I have never, as yet, read a physiological or medical work, which exhibited the real difference between the effects of self pollution and those of sexual intercourse. In fact, many young people, who have studied the writings of medical men considerably, have asked me why masturbation moderately indulged in is any more injurious than a natural gratification of the pas sions. This work shall not be incomplete in this particular; it shall not only sound in the young ear the tocsin of alarm, but give philosophical reasons why the former is positively deleterious and the latter, in a measure, beneficial. Such an explanation, however, is reserved for Part Second, in which all matters pertaining to the amative passion and sexuality will be thoroughly discussed. Let all of both sexes, old and young, read it, for no one should hesitate to obey the injunction—"know thyself."

The juvenile feat of standing on the head, is quite extensively practiced by school boys without a knowledge of the injurious effects. I have seen urchins remain in an inverted position till the blood appeared as if ready to gush out of their eyes and cheeks. The effect of this exploit is to impair the circulation of both the blood and nervous fluids, and congest the brain. On a par with this exercise, is that of turning around sufficient to become dizzy and fall down. Little girls are most addicted to this practice. It is injurious to the optic nerve, which is irritated by the sudden changes of objects passing before it, and also to the brain, whose functions of distributing nervo-electricity to the system is partially suspended. A rapid spiral motion, in brief, tends to destroy the general harmony of the animal functions. School teachers should have an eye to their pupils out as well as in school, and discourage all practices so obviously injurious.

To make healthy men and women, an entire revolution is necessary in the training of children. Very few girls and boys, now a-days, bloom into womanhood and manhood with healthy physical organizations. Some of the causes are indicated in what has been said in this essay. The principal errors in their training have been briefly alluded to, and a thousand minor ones cannot fail to suggest themselves to the experienced mother.

7th. BAD HABITS OF MANHOOD AND WOMANHOOD.

One of the worst of these is the use of tobacco, which is indulged in by about eight hundred thousand of the world's inhabitants, and to an extent almost incredible. In New York city alone $10,000 a day is spent for cigars, while only $8,500 are expended for bread. And in the United States about $12,000,000 are expended annually for tobacco in some form. The gentlemen smoke and chew, and the ladies snuff and sometimes puff.

Now tobacco is a medicinal plant and should not be indulged in by healthy persons any more than cathartics and emetics. It is a very active narcotic and sternutatory, and should only be used by neuralgic and catarrhal invalids, or those troubled with constipation, and then only by the direction of a physician. Its use by healthy people is attended with injury to the nerves and blood. The poisonous properties of tobacco are forcibly exhibited in the following extracts which I make from a little work by Dr. Alcott.

"By the ordinary process of distillation, an alkaline principle in small quantity is obtained, called by chemists "nicotin" as well as an oily substance called 'nicotianine.' A drop of either of these, but especially of the former, is found sufficient to destroy life in a dog of moderate size; and two drops destroy the largest and most fierce. Small birds perish at the bare approach of a small tube holding it.

"There is another oil procured from tobacco by distilling it at a temperature above that of boiling water, called *empyreumatic* oil. It is of a dark brown color and has a smell exactly like that of old and strong tobacco pipes. A drop of it forced into the lower portion of the intestine of a cat, causes death in most instances, in about five minutes; and two drops, applied in the same way to a dog, are often followed by a similar result.

"The experiments on which these conclusions are based, have been repeated and verified, in this country, by Dr. Mussey. His subjects were dogs, squirrels, cats and mice. The following are among the most important of his experiments:

"Two drops of oil of tobacco, placed on the tongue, were sufficient to destroy life in cats which had been brought up, as it were, in the midst of tobacco smoke, in three or four minutes. Three drops rubbed on the tongue of a full-sized young cat, killed it in less than three minutes. One drop destroyed a half-grown cat in five minutes.

Two drops on the tongue of a red squirrel, destroyed it in one minute. A small puncture made in the tip of the nose with a surgeon's needle, bedewed with the oil of tobacco, caused death in six minutes.

"Mr. Barrow, the African traveler, assures us that the Hottentots use this plant for destroying snakes. 'A Hottentot,' says he, 'applied some of it from the short end of his wooden pipe, to the mouth of the snake while darting out his tongue. The effect was as instantaneous as that of an electric shock. With a momentary convulsive motion, the snake half twisted itself, and never stirred more; and its muscles were so contracted that the whole animal felt as hard and rigid as if dried in the sun.'

"'The tea of twenty or thirty grains of tobacco,' says Dr. Mussey, 'introduced into the human body for the purpose of relieving spasm, has been known repeatedly to destroy life.'

"Dr. Rush says, that even when used in moderation, 'tobacco causes dyspepsia, head ache, tremors, vertigo and epilepsy.' 'It produces,' he again says, 'many of those diseases which are supposed to be seated in the nerves.' 'I once lost a young man,' he adds, 'seventeen years of age, of a pulmonary consumption, whose disorder was brought on by intemperate use of cigars.'

"Dr. Woodward, after presenting a long array of facts showing the tendency of tobacco to produce disease—apoplexy, aphony, hypochondria, consumption, epilepsy, headache, tremors, vertigo, dyspepsia, cancer, and insanity—concludes with the following inquiry:—'Who can doubt that tobacco, in each of the various ways in which it has been customarily used, has destroyed more lives, and broken down the health of more useful members of society, than have been sufferers from the complaint in question, (bronchitis) up to the present time, or than ever will be hereafter?'

"Prof. Silliman mentions an affecting case of a young student in Yale College, who fell a victim to tobacco. "He entered," says he, "with an athletic frame; but he acquired the habit of using tobacco, and would sit and smoke whole hours together. His friends tried to persuade him to quit the practice, but he loved his lust, and would have it, live or die,—the consequence of which was, he went down to the grave a suicide." Prof. S. mentions also the case of another young man, in the same institution, who was sacrificed by the same poisonous weed. Prof. Pond, of the Bangor Theological Seminary, relates one or two similar cases of students whom he knew at Andover and elsewhere."

"The German physicians state in their periodical, that, of the deaths occurring among men in that county, between eighteen and thirty-five years of age, one half die from the effects of smoking. They unequivocally assert, that "tobacco burns out the blood, the teeth, the eyes and the brain." It has been observed, that the manufacturers of this article carry pale, ghastly countenances; and it is also said that few of them live to old age. Agriculturists say that it soon poisons the soil on which it grows, or rather, that it impoverishes the soil more than any other plant in the vegetable kingdom."

In the form of snuff, tobacco is a common cause of palsy. Several cases, corroborative of this assertion, have occurred under my own observation.

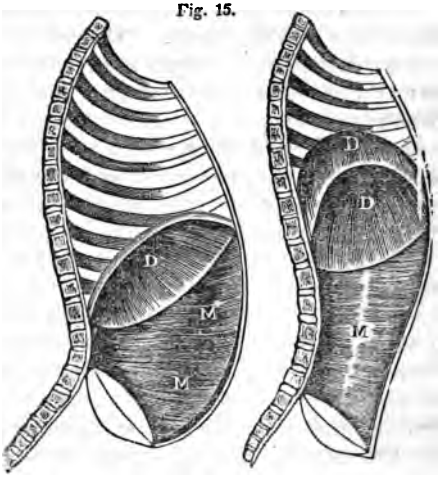
In some countries Indian Hemp is the fashionable poison, in others the betel nut, and to sum up all, there are about three hundred millions of opium eaters! Verily, it seems as if mankind were universally bent on self destruction, and that those who put the razor to the throat are the impatient few who cannot await the gradual results of the popular methods of suicide.

The prevalence and fatal consequences of intemperance in the use of ardent spirits have been fully considered under the head of "The Fluids we Drink," likewise the injurious results of excessive meat eating under the caption of "The Food we eat." It is only necessary to advert to them in this place, in order to remind the reader that there are other popular habits, equally as destructive to health as the use of tobacco. It is a peculiarity of human nature "not to see ourselves as others see us," and, frequently the tobacco-chewer will upbraid his brother for drinking, and vice-versa, and the excessive meat-eater moralize on both of these practices, while the pork eater considers himself the very paragon of sobriety and christianity. Probaby two-thirds of the temperance philanthropists who are making such strenuous efforts to put down the rumsellers, are themselves constant patrons of the hog-butcher, and do not dream that they are inconsistent. By eating distillery fed pork, they actually consume *second-hand liquor*, or in other words, eat it after the hogs have drank it, and still they would religiously refuse a piece of mince pie which was known to contain brandy. Now, my object in writing thus is not to throw ridicule upon the philanthropic movements of the day, but rather to suggest for them a wider scope.

Bad habits in dress have been investigated under the head of "The Clothes we Wear;" but as I declined in that place to treat of the evils

of tight lacing, I will devote a little space to them here, inasmuch as it is a practice more destructive to health and longevity in fashionable circles than tobacco chewing, liquor drinking or pork eating. The ladies who "will not put their arms through rum-jugs," (as some have appropriately termed the elbows of liquor topers,) must not consider themselves immaculate, which they may be inclined to do if one of their iniquitous habits is not exposed in this connection.

Fig. 15.



POSITIONS OF THE DIAPHRAGM.

One of the most injurious effects of tight lacing can be seen in noticing the peculiar office of the diaphragm as represented in Fig. 15; D D exhibit the diaphragm, and M M M the abdominal muscles. The first view represents the diaphragm as it appears when air is inhaled, the other as when the air is expelled. The diaphragm rises and falls to aid the lungs in inhaling vital air, and exhaling that which has been deprived of its electric property and loaded with animal effluvia.

How common it is for ladies to complain of *shortness of breath!* Strange it is that they do not know the cause, when they compress the chest so tight that the free action of the diaphragm is interrupted. Of over twenty thousand ladies whose lungs I have examined, at least 75 per cent. of them could expand the upper parts of their chest from one to three inches, by tape measurement, while the expansive powers of the lower portions were often less than half an inch and seldom exceeded one. In those persons who have not habituated themselves to the wearing of tight clothes the expansive power of the upper and lower portions of their lungs varies only about a quarter to half an inch, whereas, in fashionable ladies, it almost invariably varies from one to three inches. Any lady can try this experiment and convince herself, with a tape measure, placing it first around the chest immediately under the arms, and then to the lower

extremity of the lungs. The experimenter, after adjusting the tape, should exhaust the air from the lungs and then draw the tape as close as possible; then inhale, gradually allowing the tape to slip through the fingers until the lungs are swelled out to their utmost capacity. The figures on the tape generally give a result which will convince the fair experimenter that she has been from childhood a constant violator of nature's laws.

The disturbance of the functions of the diaphragm is by no means the only evil of tight lacing. The circulation of the blood and the electrical radiations are impeded thereby, in addition to which there is a still greater and more alarming evil. I allude to the pressure which is thrown upon the bowels, and from the bowels upon the womb. The peculiar organization of woman renders the practice ten fold more injurious to her than it would be to the male. The shocking prevalence of prolapsus uteri, commonly termed falling of the womb, is greatly owing to the pernicious practice of tight lacing

The greatest mystery to me is that the ladies lace at all. A majority of them who do are members of Christian churches, and are instructed weekly from the pulpit that the works of God are perfect; do they then mean to willfully insult the wisdom of their Creator by attempting to improve upon them? Now this question is a poser to those who belong to the Church of Christ, but as a faithful physiologist I am in duty bound to ask it. The fact is, it is a mistaken notion that wasp waists are pretty. They look *perfectly horrible!* I would rather see a woman's waist as big round as a bushel basket than to see it contracted to a size a trifle larger than the neck. I am glad to see that many of the ladies themselves are beginning to regard small waists as physical deformities. One of them, a Mrs. Merrifield, speaks right out as follows:

"The very expression 'a small waist' implies a disproportion. A small waist is too small for the general size of the figure to which it belongs, just as a low-pitched room or a narrow room is too low or too narrow in proportion to its height. A well-proportioned room has none of these defects, and the waist of a well-proportioned person should be in harmony with the other parts of the figure.

"The ancients do not appear to have recognized the virtue of small waists: and a modern lady would be in an agony if her waist were of the proportional dimensions of those of some antique statues. The celebrated Venus de Medicis—'the bending statue that enchants the world'—has what would, at the present time, be called a *large*

waist; yet modern connoisseurs and artists have unanimously declared that this is the most perfect female form which the art of ancient or modern times has transmitted to us. They commend, not only the faultless shape of each part, but the admirable proportion of one part to another Let us devote a short space to a few observations relative to the dimensions of the waist of this figure.

"The Venus has been frequently measured, and with great accuracy, by artists; but the view taken is a painter's view of a flat instead of a round surface; consequently, instead of the whole circumference of the waist, we have only its breadth from side to side, and from back to front.

"The whole figure is divided into seven heads and three-quarter parts; each head into four parts, and each part into twelve minims. The diameter of the waist from side to side is one head (or four parts) and eight minims, or nearly one-seventh of the entire height, the diameter from front to back is only three parts of seven minims; it is, therefore, nearly one-fourth longer in one direction than the other. This is the first point in which fashion is at variance with the finest forms of nature and art. Fashion requires that the waist shall be round instead of oval, and she attains her object by compressing the lower ribs, which are forced closer together. To such an extent is this construction sometimes carried, that the impression of the ribs is left permanently upon the liver.

"But it is not sufficient that the waist should bear a due proportion to the height, it must also be proportioned to the breadth of the shoulders. Now, the Venus is just two heads, three parts,

Fig. 16.

A CONTRACTED WAIST

Fig. 17.

NATURAL WAIST.

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and eight minims across the shoulders—exactly half a head more than the diameter of her waist from side to side. When, therefore, there is more or less than half a head proportionate difference between the breadth across the shoulders and the waist, the figure is deficient in just proportion. It is to be observed that some individuals are tall

Fig. 18.

A PERFECT FEMALE FIGURE, AS DESCRIBED BY MRS. MERRIFIELD.

and slight, others short and broad; in all cases, however, there must be a corresponding agreement between the breadth of the shoulders and that of the waist.

"As we know the two diameters of the waist, we are able to calculate the circumference, which is equal to three heads and four minims, or somewhat more than two-fifths of the entire height. We shall assume this approximation to be correct. Now, the real height of the Venus de Medicis being four feet, eleven inches and two lines, and her proportionate height seven and three-quarter heads, the proportionate circumference of her waist, being three heads and four minims, is equal to twenty-four inches, eight minims, more than two-fifths. It may be considered, then, that a well-proportioned waist should be *at least* two-fifths of the height of the figure: whatever is smaller than this, is disproportioned. According to this scale, therefore, the waist of a person five feet three inches high should not be less than twenty-five and a quarter inches; of five feet five inches, twenty-six inches; of five feet seven inches, twenty-six and three-quarter inches; of five feet eight inches, twenty-seven and a quarter inches.

"We have heard of a young lady of the middle height, or perhaps somewhat under that standard, who found fault with her stay-maker for having made her stays nineteen inches round the waist, when she knew that the young lady's measure was eighteen inches! Eighteen inches! According to scale of two-fifths of the entire stature, which, as we have seen, is under the mark, the height of a young lady whose waist did not exceed eighteen inches, should have been *three feet nine inches!*—the height of a child, with a proportionate of a woman.

"Enough has been said," concludes Mrs. M., "to convince our readers that a very small waist is a defect rather than a beauty, and nothing can be truly beautiful which is out of proportion. Would that we could also convince them that they cannot possess an excessively small waist without the certain sacrifice of their health!"

Would that the female portions of civilized society were made up of Mrs. Merrifields, and my word for it, men would have merrier and more beautiful wives, and healthier children. I have never had the pleasure of seeing Mrs. Merrifield, and know not if she is pretty or ugly, but if, by any possibility, she be the latter, her offspring cannot fail to be both handsome and healthy, as a reward to the mother for her obedience to nature's laws.

In the next place I should treat of some of the pernicious habits of married people, in their private relations, were it not for the fact that extended remarks on these will be given in Part Second. They

might with propriety be introduced here, for they are common causes of nervous and blood derangements. But the consideration of all matters relating to marriage, its excesses, etc., will be deferred for the place specified.

There is one habit growing with fatal rapidity in the United States, which demands the criticism of the physiologist, and that is *medicine taking*. The country is flooded with patent medicines, and every village store has shelves appropriated to the display of this kind of *semi-apothecary* merchandize. If they would remain shelved no injury could ensue from their preparation; but unfortunately there is a ready market for them, as is evinced by the rapid accumulation of wealth by those who manufacture them. The origin of each one of these medicines is something like this: Mr. Unfortunate has a wife or other relative sick with consumption; he tries every thing and every body with little or no success; finally he resorts to something which his own fertile brain suggests, and, astonishing to say, the invalid actually recovers. The surprised discoverer at once thinks he has found an infallible remedy for consumption, and the bottle maker and the printer at once receive stupendous jobs—the former to make some quart bottles with a jaw-breaking name blown in one or all sides, the latter to get up labels and flaming posters. He is received at once by credulous invalids as a great benefactor, and by the old school doctors and "knowing ones," as a huge humbug. But, reader, he is neither of these two—only a *mistaken man*. He does not understand the law of temperaments. Many physicians do not. I might say further: the majority of the medical profession do not.

Notwithstanding the adage "what is cure for one is poison for another," has become trite from daily repetition, its true import is not comprehended. It should be understood, that every variety of temperament denotes as many varieties of human beings, the same as the leaves and bark of trees indicate different varieties of trees. For this reason a medical man or a discoverer of patent medicine should not give to a black haired, brown complexioned man the same medicine which has cured a light haired and fair complexioned individual, even if his disease is the same.

It is plain that patent medicines must act upon the principle of "kill or cure." They are absolutely dangerous and the amount of mischief they are doing is incalculable. Many an invalid is rendered hopelessly incurable by experimenting with these nostrums before

consulting a skillful physician. I have frequently been called upon by poor emaciated creatures who have swallowed forty or fifty bottles of different panaceas. If their cases are at all curable, a great deal has to be *undone* before any relief can be administered. If people would exercise half as much discrimination in dosing as they do in many other things of less importance, patent medicines would be robbed of half their power to harm. They understand why Parson A's coat will not fit Capt. B's back—why the pretty dark dress of blue eyed Mary does not become "black eyed Susan," and why a hymn in long metre does not sound well to a tune of short metre, but it does not occur to them that the rule of adaptation extends equally to medicine. Let it be understood, then, that difference in form, size and complexion, indicate difference in temperament, and that difference in temperament indicates difference in constitutional peculiarity. Next we arrive at the irresistible inference that what is beneficial to a man of a nervous temperament may be injurious to one of a bilious temperament, &c. The intelligent farmer understands the temperaments of soils, and throws on such manure as they require. On soil deficient of alkali he strews ashes or lime; on that deficient of ammonia, the gleanings of the stable, etc. A majority of intelligent physicians do not understand the *laws of temperaments*, and such not unfrequently have to bear the name of "kill or cure doctors," and such they manifestly are.

It will now be seen by the preceding, that while those who buy and take patent medicines are often ingloriously humbugged, the manufacturers are by no means, in all instances, humbugs. Many honest men and women think they are doing a great amount of good in the world by compounding and selling "one-cure-alls." Their error lies in the head and not in the heart.

Patent medicine eaters and drinkers should, therefore, be careful what they put down, and take nothing in the form of medicine unless necessary. It is said that there is a tomb-stone in one of the English cemeteries, on which are inscribed the following words:—"I was well, took medicine to feel better, and here am I." There are thousands of tomb-stones in America which might truthfully bear this same inscription.

Turning night into day is an injurious and prevalent custom, particularly in fashionable life. Observation and experience have taught almost every one of adult age, that the habit is destructive to the nervous system, but these teachers often fail to improve any one in

the absence of testimony founded on philosophy. I have looked in vain in the writings of medical men and physiologists for any rational reason why man should lie down at night and rise with the sun. The *effects* of the non-observance of this hygienic rule are plainly exhibited by many popular medical authors, but frequently not so forcibly in their literary productions on the subject as in their own faces, which betray the secret that the physiological teacher does not always practice what he preaches.

Such is the happy predominance of the social faculties in the best classes of human beings, the social circle is more attractive than the embraces of morpheous, and most persons are ready to attribute the injurious physical effects of unseasonable hours for rest, to any other cause than the true one. There is, therefore, great need of new light on this subject—something which will appeal to the *reason* of men, and demonstrate the fact that one hour of sleep at night is worth more than three after the sun has risen. From the investigations I have made, I have come to the conclusion *that during the day the magnetic or electric currents from the sun predominate, and, descending perpendicularly or obliquely the upright body is brought in harmony with the descending currents, while at night the magnetic or electric currents of the earth predominate, and flow from North to South, horizontally, in consequence of which the human body should be in a recumbent position, with head to the north, in order to preserve the harmonious circulation of the nervo-electric fluids.* That this hypothesis will be favorably received by those who have had much experience as electrical therapeutists, I am confident, for all who understand the proper application of electricity, know that, with few exceptions, the electrical currents from the machine must be passed from the positive to the negative in the directions which the nerves ramify. This being the case, ought not the electrical currents from the sun during the day and those of the earth from North to South during the night, be made to observe the same rule by a conformity of the position of the body to them? In applying the galvanic battery, if the electrical currents are passed contrary to the nervous ramifications, or from their termini to their source—the brain—nervous irritation ensues, and the patient is rendered more nervous. Such it seems to me, must also be the result of a non-conformity to the directions of the currents of the earth and sun. In fact we see it exhibited in a majority of those who turn night into day. True, there are a few whose strong nervous organizations appear to resist

all such influences, but the continual dropping of water wears away a stone, and these exceptions finally favor the truth of this philosophy.

The sun exerts a powerful magnetic influence on the earth, arousing all animal life to activity, from the merest insect to the noblest work of God. The fowls of the air, the beasts of the field and all human beings who obey the laws of nature, feel inspired with new life when the golden rays of the rising sun radiate from the east. The activity of the animal fluids increases till she reaches her meridian, and then gradually decreases until she sinks to rest in the west. When "old Sol" retires, the colder magnetic currents of the earth prevail with greater power; animal life becomes more sluggish; the wearied body seeks repose; and the most perfect repose is obtained by reclining in a position consonant with the earth's currents.

Fast eating, a universal habit with Anglo-Americans, is highly injurious to the nervous and vascular systems, and induces those conditions in the system which usually ultimate in dyspepsia. It is eminently characteristic of the Yankee to do every thing in a hurry. Not satisfied with praying fast, walking fast, working fast and traveling fast, he generally, and that too unconsciously, eats fast. His jaws keep time with the locomotive's wheels, and his arms and elbows with the rapid alternate movements of the piston rods I was once much amused with an illustration an Italian gave of a Yankee at a steamboat table. Just previous to the sounding of the dinner gong, he was descanting most wittily in broken English, on the customs of the Americans, and, when dinner was announced, he proposed to show how a Yankee enjoyed (?) a good meal. With true Yankee impetuosity he rushed to his seat at the table; knives and forks flew in every direction; one arm shot to the right for one thing and the other to the left for another; while the fork was performing a rapid trip to the mouth, the knife, which had just discharged its load, was nervously returning to the plate. A few such spasmodic motions, and impulsive calls to the waiters, ended the repast, and with a whirl of his chair, he turned almost breathless from the table. Nor was his delineation over-wrought. I have myself seen just such spectacles hundreds of times at public tables.

At home, at his own table, the Anglo-American is not much more moderate in eating. The mouth is crowded with food and successively washed down with tea, coffee or some other liquid. Now it is the duty of the physiological writer to admonish the reader of the

effects of this habit, and if, after knowing the consequences, it is still persisted in, no one will be in fault but the sufferer, if the worst form of dyspepsia is the result.

Fig. 19.

THE SALIVARY GLANDS.

1, Parotid gland; 2, its ducts; 3, Submaxillary gland; 4, its ducts; 5, Sublingual gland.

The thorough lubrication of the food with saliva is necessary to promote good digestion. Saliva is an alkali, and, electrically speaking, a negative, while the gastric fluid in the stomach is an acid and a positive. When, therefore, food descends into the stomach, only half masticated, and lubricated with some other fluid than saliva, digestion for some time is almost suspended, because the negative fluid is wanting to attract the immediate action of the positive fluid, and the presence of other liquids tend to dilute and destroy the power of the latter. In addition to this, the labor of the jaws and teeth is thrown upon the disabled stomach. How surely, then, must the electrical or nervous machinery of the digestive apparatus be disturbed. Then again, food in the stomach, unless at once acted upon by the gastric fluid, commences a process of decomposition and fermentation, by which means the blood also becomes involved in the pernicious results which follow. If a person eats slowly, masticates thoroughly, and omits all drinks, nature furnishes *three or four ounces of salival fluid* with which to moisten his food, preparatory to its

entrance into the stomach. No one requires liquids to drink at the table. This habit is the result of fast eating. The salivary glands cannot furnish lubricating fluids fast enough for the rapid eater, so he depends on artificial liquids, which dilute what little saliva is used as well as the gastric juices. Liquids should never be swallowed till after eating, and then not to the extent that they are usually Eat slow and depend only on the fluid nature furnishes to moisten your food.

"Habit is second nature." So says the proverbialist. How important then it is that we should form such habits as will tend to develop physical health and mental vigor, instead of physical decay and mental imbecility. Habit is not acquired in a day—seldom in a year. It creeps upon an individual gradually, and if its effects are disastrous to health and longevity, so imperceptible are the changes it produces in the system from day to day, the victim is seldom aware of the cause of a disease which is developed by it.

Experiment has demonstrated that a man may endure, without pain, the heat of an oven hot enough for baking purposes, if he be placed there while the oven is cool, and the heat is slowly raised to the baking point. But does any one believe that a person kept in such a temperature, however comfortable it may become to him, will live as long as if he were surrounded with a temperate atmospheric element? Dr. Kane and his gallant band of Arctic navigators, became so habituated to a cold temperature, that they could walk themselves into a comfortable perspiration with the thermometer at *forty-two* degrees below zero, or *seventy-four degrees below the freezing point!* But their enterprising adventure made sad inroads upon their physical organizations and the brave commander of the American Polar Expedition, with several of his heroic companions, have since paid the forfeit with their lives. Thus we see the flexibility of the human body to conform to whatever conditions we force upon it, and we also perceive how fatal to longevity are all deviations from the injunctions of *first* nature. We may change our natural habits of eating, drinking, sleeping, &c., to some others acquired, as easily as we can accustom our systems to extreme temperatures, and experience no immediate discomfort; but first nature will some time demand a settlement and second nature will turn bankrupt, throwing the loss upon his superior.

Those who strive to save the souls of men counsel all to take a daily retrospect of their conduct, to see if they have violated any

moral law. I would also advise a daily retrospect to ascertain if any physical law has been disregarded; for how can the immortal spirit maintain purity and complacency in a corrupt tabernacle. It is also the duty of the Christian mother to watch over the physical as well as moral tendencies of her children, and to train them into habits which will conduce to a healthy corporeal and mental development.

8TH. UNHAPPY MARRIAGES.

These conspire to destroy the tone and vigor of both the nervous and vascular fluids. The mind, chafing in the galling fetters which bind it to an uncongenial companionship, almost forgets its corporeal dependency, and consumes within itself the nervo-electricity which should be dispensed through the nervous system, to impart healthy action to the blood and the organic machinery Unhappy marriages are unlike any other troubles, because society is so constituted that a majority of their victims prefer rather to fall suicides to their self-inflictions than to encounter the frowns of their friends and acquaintances by practically severing a contract which yields little but mental disquietude, affectional suffocation and nervous and vascular debility

The world little knows the extent of matrimonial inharmony. Each pair who find themselves unhappily mated imagine that they belong to the unfortunate *few* who have made the great "mistake of a life time;" but the physician, in whom is generally confided the secrets of the broken heart, after the constitution has also become broken, knows from the frequency of such confessions that they form a part of the great majority instead of the minority.

An English paper states that in the year 1854, there were in London 1,132 runaway wives; 2,318 runaway husbands; 4,175 married people legally divorced; 17,345 living in open warfare; 13,279 living in private misunderstandings; 55,340 living in mutual indifference, while only 3,175 were regarded as happy; 127 nearly happy; and 13 perfectly happy.

In what way the English statistician obtained these facts, if they are facts, I am unable to say. In this country it would be impossible to gain correct information of the amount of connubial infelicity as compared with the real happiness in the domestic relation, unless every physician of extensive practice should contribute the results of his observations. Seldom are the most gossiping neighborhoods of the United States acquainted with the actual state of feeling existing between the husbands and wives which live therein, and it

is not uncommon for husbands and wives to deceive each other, with regard to their real sentiments when they find that they have mistakenly entered into a companionship distasteful and perhaps disgusting to one or both.

I was once called upon by a lady, in one of the New England States, whose mind was distracted and nervous system nearly exhausted, because she had formed an unhappy alliance with a man whom she found she could not respect and love. But she had great benevolence, and rather than make him unhappy by a disclosure of her feelings, she had concealed them from him, and they were secretly gnawing away the nervous threads that connected her spirit with her body. Ah! how many wives whose eyes fall upon this story will see in it the mirror which reflects their own miserable situation. Rest assured that lady is not the only one whose benevolence and pride bind her to an unnatural union, and a concealment of her wretchedness.

Unhappily, the victims to uncongenial marriages, are not alone sufferers thereby. The nervous, puny offspring, which is the issue of such adulterous alliances, opens his eyes on a world of physical and moral wretchedness, and hence the sin of the parents is visited upon their children of the first and every succeeding generation. So marked are the physical influences of unhappy marriage on the offspring, that I can generally tell at once, when I see a family of children, whether the father and mother are happily or unhappily mated. Both mental and physical suffering is the inevitable inheritance of the unfortunate child who is born of ill-mated parents; and if he survives the fatal tendencies of a poor constitution till he himself becomes a father, his child, in turn, will possess at least a trace of his progenitor's infirmities, and so on through the whole line of his posterity.

For further remarks on this subject, embracing a treatise on the causes, effects and remedies for unhappy marriages, the reader is referred to Part Second of this work, where it will receive the attention its importance demands.

9TH. PROSTITUTION AND LICENTIOUSNESS.

Prostitution may be compared to a vast sea of physical corruption, in whose waters the licentious lave and come out lepers. Where the beautiful river, lake or ocean contributes to the commercial prosperity of any city, there also this great sea of corruption rolls most unob-

structedly, and thousands of peaceful villagers, who daily or yearly frequent a metropolis, in an unguarded moment get submerged in its dirty waters, and then carry home to their faithful wives a disease more loathsome than a suppurating cancer.

The blood of the whole human race is becoming contaminated with venereal poison. Do you question this assertion? Look at the fact that in the United States there are not less than *one hundred thousand* harlots, and in London alone nearly an equal number, nightly dealing out sensual pleasure and physical death to a still greater number of inconsiderate men. But they are not all diseased, says one. Admit that; it is safe to presume that one-third of the whole number are, and a little exercise in simple division shows to us that the seeds of venereal poison are communicated nightly to over 30,000 persons in the United States, many of whom have wives or bed companions, to whom they impart the disease. Next, perhaps, offspring become infected, and they, with their ulcerated little gums communicate it to the nipples of nurses who have been called to supply the places of diseased mothers in nurseries, and they in turn impart it to other innocent babes. And so the infection spreads like fire on the prairie, throughout the whole human family.

The "street walkers" of New York city have been vulgarly termed "Pox Peddlers," but a more significant name cannot be found in the English vocabulary, and I quote it because it explains more forcibly than many pages could, the real nature and consequences of their vocation. Thousands of virtuous married ladies in our country to-day are suffering with aggravated forms of fluor-albus and annoying humors, which originated from the syphilitic diseases of the wretched women who nightly promenade the great thoroughfare of the metropolis of America. These abandoned creatures are supported by the strangers who daily throng the commercial mart, for the resident population are well aware that they are but painted sepulchres, full of disease and rottenness. How well they are maintained by the floating population, is a question which their gaudy and expensive costumes answer with more force than language can express; for it is a proverb that they, "like the squirrels, cover their backs with their tails."

It has been argued, and with a show of plausibility, that prostitution is a *necessary evil*. That did it not exist, our wives and daughters would be unprotected from the insidious advances of libertines and the forcible outrages of men of reckless passion. My own observation has convinced me that libertines in towns of moderate size,

where prostitution is not tolerated, are more given to the seduction of thoughtless wives and unsophisticated young girls than the same class in large cities. But the Rev. Dr. Wardlaw asks, and with good propriety,—"What special title have the wives and daughters of those who employ this plea to the protection of *their* virtue, more than other wives and daughters? Why are theirs to be protected at the expense of others, and not the others at the expense of theirs? Who, in the community, are to be the victims—the vice doomed safeguards of the virtue of the rest—the wretched safety valves of unprincipled and unbridled passions? Are we to have a decimation, by lot, of the virginity of the country?—or is some inferior class to be sacrificed to the demon of lust for the benefit of those above them? Is vice essential to the preservation of virtue? That were indeed a hard necessity. Where is the individual, male or female, and in what rank soever of society—whom I am not to dissuade from vice?—whom it would be wrong so to dissuade?—the successful dissuasion of whom would be an injury to the public?—by prevailing with whom to give up the evil course, I should incur the responsibility of one who shuts a high pressure safety-valve?—where the individual whose body and soul I am bound to leave to death and perdition, lest perchance some others should come to be exposed to temptation?"

These questions are suggestive, and cannot fail to awaken reflection on the part of those who claim that prostitution is a necessary evil. Perhaps a little inquiry into the causes of prostitution will settle this difficult question. One of the primitive causes, I maintain, is the premature development of the amative passions of youth by a too stimulating diet. Most parents allow their children in swaddling clothes to indulge in a diet only suitable for adult age. Do they not know that condiments, animal food and coffee early arouse the slumbering sexual passions of the young? These articles of diet at once impart undue warmth to the blood, and awaken early sexual desires in their children, leading boys to early acquire the arts of the libertine, and rendering girls susceptible to the amorous advances of the opposite sex. Thus, from one parental error, spring up on one side a host of amative libertines, and on the other scores of voluptuous women who have not the power to resist temptation, all of whom are required by custom to abstain from legal marriage until they have nearly or quite passed their teens. The remedy for this evil suggests itself.

Another cause is unhappy marriages. These create thousands of bad men and women. The indissolubility of the marriage contract drives both parties to desperation; makes the husband a willing patron of the harlot, and the wife an easy victim to the libertine. Ignorant of the laws which should govern marriage, men and women are daily rushing into matrimony whose physical and mental uncongenialities are only discovered to them after the "honeymoon" has cooled down their impulses, and left their reasoning faculties unobscured by the infatuation of passion. But when they awake from their dream, they find the civil law a reality, and that they must content themselves to live in adultery, one with the other, or incur public disgrace by the commission of some crime which will entitle them to a divorce. A remedy for this evil will be given in Part Second.

Another fruitful cause of prostitution in large cities, is the small compensation awarded to female labor. In consequence of this few are able to earn more than enough to supply present necessities, and when "hard times" prevail they have neither work nor the means of subsistence. In such an extremity a very few whose pure souls abhor a life of shame, choose death rather than the princely abode of the courtesan, and end their existence by poison or drowning. But many rush into harlotry, for observation has taught them the humiliating fact that men will pay dollars for sexual gratification who will only bestow cents in charity. When such reward is offered for vice, and want and threatened starvation held out to virtue, it is only surprising that more do not abandon the flickering night-lamp and needle, for the dazzling chandelier and easy cushioned tete-a-tete of the fashionable brothel.

The "hard times" of 1837, '54 and '57 drove hundreds of New York seamstresses and shop girls to a life of prostitution. The streets of this metropolis throng with this class of females, whenever there is a financial pressure, local or general. Some thirty thousand women are dependent upon the products of their needle in New York, many of whom have helpless parents and children who look to them for subsistence. Imagine their terrible extremity when thrown out of employment.

It is said that out of 5,000 prostitutes in Paris whose cases have been minutely examined, 1,400 were reduced to that state by sheer destitution! A writer remarks that "there are fifty or sixty families in Edinburgh who are almost wholly supported by the

secret prostitution of the mother, and three times that number who are partially maintained in the same manner. A daughter had struggled on six years to support herself and bed-ridden mother by the needle; before sacrificing her virtue she sold the last blanket from her mother's bed, and her own last dress.

"Who will deny that these are startling considerations. And what is true of European cities, is true of American ones, to a greater or less degree. Young girls can always get money in our large cities by bartering their virtue. It is an unfailing dernier resort. Why should it be thought strange that a female, pressed by pale want, should do that which a male will do in the absence of this necessity, and without a scruple? And why, especially, should it excite wonder, while black hearted seducers and procuresses, knowing this want, swarm thick around, ever ready to take advantage of their distressed condition?"

For this evil it is difficult to suggest an immediate remedy, such is the spirit of rivalry and speculation in the commercial world But there is one which time and change in public opinion may introduce. It is to educate girls as we do boys, in the practical business matters of life, and then open to their pursuit all trades and professions, in order that their field of industry may not be so unreasonably circumscribed.

Still another cause of prostitution has its origin in the general ignorance which prevails concerning the power and phenomena of animal electricity, or magnetism, as it is generally termed. All classes of females, from the daughters of the affluent to the pretty shop girls, contribute inmates to the brothel, in consequence of ignorance on this point. They are not aware that some men possess an electric power to charm, like the snake. The philosophy of this will be thoroughly explained in Part Second; but the consequences demand at least an allusion here. Coquettish ladies are apt to invite the attentions of prepossessing strange young gentlemen; and coquettish young ladies, I am sorry to say, are numerous. They commence flirting with their admirers with the pre-determination of keeping their affections to themselves. Still they will venture much to ascertain the sentiments of their pretended lovers. Gradually the latter practically mesmerize them, when pretty coquettes find themselves, like the fluttering bird before the charming serpent's mouth, utterly unable to control themselves. The keepers of houses of ill-fame in large cities, know that many men possess this singular power to

charm, though perhaps not one of them know the mysterious agent they employ to produce this fascination. The result is, that men who are so powerfully electric or magnetic as to be able to exercise such a controlling influence over young ladies, are stationed in all large manufacturing towns where female operatives are numerous, to furnish fresh victims for the fashionable dens of prostitution. A partial remedy for this evil may be given in few words. Young ladies must not make too free with young gentlemen whose characters are not favorably known in the neighborhood in which they reside. Observance of this rule may sometimes cause Miss Julia to turn her back upon an angel, but as devils are most numerous in traveling pants and waistcoats, so serious a slight will seldom be given to celestial broadcloth.

In reviewing some of the principal causes of prostitution, can we not see that if it really be a necessary evil, it is so because of important errors in the training of children; in indiscriminating civil laws regulating marriage; in despotic custom, circumscribing the industrial sphere of women; in the ignorance of the electrical power of every individual, for good or evil? Reformation in the training of children is the first place to begin to do away with prostitution. So long as the sexual passions of children are stimulated to precocity by an exciting regimen, and goaded to illicit gratification by the romantic yellow-covered literature of the day, so long will there be men who will violate the marriage bed and destroy virgin purity where the institution of prostitution is not tolerated; and so long will houses of ill-fame be annually furnished with voluptuous young females from all ranks of society.

Were it universally known to what an alarming extent the pernicious physical effects of prostitution are felt throughout all communities, more decided measures would be adopted under the paternal roof to cut off one of the main tributaries to this gigantic evil. The word of the mother is the law of the household, and she seldom dreams, even if suffering with disease induced by venereal poison, that prostitution can ever inflict a pang in her sheltered home. Why, I have cured hundreds of ladies from nearly every State in the Union, whose diseases arose directly or indirectly from syphilis, and who would have died of grief had I divulged to them the real nature of their complaints. I will not venture to compute how many have been my patients for the cure of venereal disorders, or diseases arising therefrom. Fowler, in a little work on Amativeness, remarks,

"Many do not know how prevalent this disease is in its various forms. Its victims keep their own secret as long as possible, and doctor themselves, except when their case becomes desperate; and then confide it only to their medical adviser, whose very profession forswears him to keep the secret. Oh! how many of our young men have ruined their constitutions, and become invalids for life, solely by means of this disease or attempts to cure it. Indeed its prevalence at the Sandwich Islands actually threatens the extinction of that nation; which at its present rate of mortality, it is computed to effect in about sixty years! And if it goes on to increase in the ratio of its past progression, it will ultimately cut off our race itself!

"The fact that SEVERAL THOUSAND COPIES of a little work of less than twenty pages, on the cure of venereal diseases, are sold *every month, at one dollar per copy*, and that other works of this class sell in proportion, shows conclusively that there are *several thousand new victims* every month! No patient wants more than a single work, yet TWENTY THOUSAND PER MONTH does not equal the sales of these works, and of course falls short of the number of victims, for none but venereal *patients* will pay thus dear for so small a book, of no manner of interest to those not thus afflicted. All this, besides all those who indulge with other than harlots by profession! Almost incredible, but nevertheless true!"

I have not the least doubt—and my estimate is based on authoritative "figures which cannot lie"—that *thirty thousand* males are daily infected with venereal poison in the large cities of the United States, a majority of whom are residents of inland towns, whither they return to spread the seeds of the loathsome disorder! Men of vicious habits in cities are generally too well acquainted with the different grades of courtesans to contract disease. They know who are "sound," as they express themselves. Their acquaintance with lewd women is not so limited but that they can exercise the privilege of choice. Still, the boasted smartness of these men does not always avail. When the medical seine is drawn, this class is quite as numerously represented as fishermen usually find the catfish at each "haul."

The reader cannot fail to see from the foregoing that prostitution is a prolific source of blood disease, and that it is rapidly converting the great fountain of life, as originally imparted to man by his Creator, into a slough of death. Of all blood impurities, there are none which lead to such endless varieties of disease as those induced by the virus with which whoredom is inoculating the whole human race!

10TH. FAILURES IN BUSINESS.

Of those casualties which, through their depressing influence upon the mind, disturb the harmony of the nervous system, there are none, which prudence has power to avert, more prolific of nervous derangements than failures in business. In fact, financial prosperity often sustains men in apparent health, whose systems are loaded with diseases in embryo, and the first stroke of misfortune which causes the brain to withhold and consume within itself the measure of vital electricity which it habitually dispenses to the various organs of the body, removes the restraining power which holds the latent disorders of the system in check, and, all at once, the unfortunate business man becomes the tenant of a sick bed or the inmate of a lunatic asylum.

The human brain sustains a similar relation to its dependency—the body—that the bank does to the commercial world. Its medium is not "rags," but vital electricity; and its depositors and patrons are not merchants and manufacturers, but organs and functions. When trouble overtakes a man, a physiological "panic" ensues, and the brain discounts sparingly. If a "run" is made upon it, it partially or wholly "suspends." The process of digestion and the action of the heart, liver, lungs, kidneys, etc., are dependent upon the vital electric forces emanating from the brain, and when the latter is over exercised with trouble and hard thinking, it reserves its electricity for its own use, leaving the body only partially supplied; and if the organs retaliate by denying nourishment to the brain, as they are obliged to do, in a measure, the delicately organized man becomes a lunatic, and the vigorous man, whose system is filled with inflammatory matter, a victim to some corporeal disease, acute or chronic.

"Hard times" invariably increase the labors of a physician, although they do not always increase the gold in his coffers. A bankrupt man is generally an invalid, a prostrate patient, or a mental imbecile. The commercial revulsion of 1857 increased the number of inmates in lunatic asylums more than twenty-five per cent., and in Pennsylvania, where its effects were the most immediately and severely felt, the Insane Hospital in West Philadelphia, and the State Asylum at Harrisburgh, were filled to the extent of their accomodations. Such were the commotions between mind and matter, that many severed the unhappy relation existing between the two by

suicide. Failures in that year were numerous, and disease, insanity and suicide increased pro rata.

Such being the effects of business failures upon the health of a people, they should be avoided, as far as possible, by prudence and economy. "Live within your means" is an old and good proverb, and he who does not, almost invariably brings upon himself nervous derangements which are sure to lead to fatal results.

Every married man should confide to his wife the real condition of his finances. Much is said of the extravagance of married ladies. Their conduct is often pronounced the cause of their husband's ruin. Much truth is uttered in such assertions, but not the whole truth. Men are apt to represent their pecuniary resources much greater than they actually are. As a sequence, wives laugh at their admonitions of economy—think their consorts "stingy"—and govern their wants by the supposed capacity of their purses. Nothing short of a failure reveals to them their insolvency.

The wife's condition, under the most favorable circumstances, is a hard one, and she cannot be blamed for reaching for the good things of life, if her husband leads her to believe he is rich, particularly if he gives plausibility to her delusion by indulging in such superfluities as Havana cigars and expensive wines.

It is high time that men began to appear to their wives exactly what they are, pecuniarily, morally and socially. Frankness in these respects would not only tend to lessen the number of business failures, but would greatly diminish the evils of prostitution. But deception, in most cases, commences with the moonlight nights before marriage, and continues until some pecuniary or physical disaster reveals things as they are. This sometimes happens unexpectedly early. Fowler gives an amusing illustration in commenting on the motive which induces many to marry:

"A *distinguished* young man from the South, making great pretensions to rank and wealth at home, paid attentions to a young lady residing near New York Bay, whose father had been very wealthy, but owing to reverses had become quite reduced in circumstances; still, the family maintained their style, and the display of affluence equalled fully what it had been in their palmier days, and, by so doing, sustained their reputation in society, in order to allow the young ladies a better opportunity of settling in life. The new comer, prompted by the desire of securing the prize, and thinking she possessed sufficient of the "needful" to pay all expenses, dashed out in

fine style, ran into every extravagance, and displayed the fastest and most beautiful horses, &c. Finding debts accumulating and becoming pressing, he hurried on the wedding day, this being the only prospect for their discharge. Meanwhile, she, not suspecting that he had falsely represented his situation, and delighted at the idea of obtaining so liberal and generous a husband, encouraged his expenses, and was profuse herself, thinking he had the means to settle the bills. They were married—when, to their astonishment and shame, they found themselves not only destitute of the means to discharge their liabilities, but unable to buy the necessary furniture for housekeeping."

Deception on both sides rather hastened the result in this instance. Had it only been practiced by the gentleman, the lady really possessing the supposed wealth, the deluded wife would have probably put her fortune into a princely establishment, relying on his purse for its maintenance, when a failure involving extensive loss would have ultimately followed.

There are unquestionably some wives who, with full knowledge of their husband's limited resources, endeavor to vie with their wealthiest neighbors, and bring upon their indulgent providers premature ruin and death. Such, however, are exceptions, and when the grave closes over the victims to their foolish extravagance, they bitterly reflect on the errors of their conduct.

Running in debt to an extent beyond all present prospect of liquidation, is a common cause of failures in business. This error is almost characteristic of the Yankee, whose enterprising spirit leads him to embark in hazardous speculations. His organ of "Hope" generally predominates over his "Causality," and, urged on by largely developed propelling faculties, he frequently finds himself in deep water, without plank or life preserver. He is, too, of all men, least calculated, physically, to endure reverses, for although he may succeed, by his indomitable will, in b ffeting the waves of adversity, his physical health suffers from all such encounters. Here, too, the proverbialist whispers—"Live within your means."

Dishonesty causes many failures. Let one man of extensive reputation and high standing in the commercial world, turn trickster and defraud a bank or railroad of a large sum of money, and the whole community suffers. Public confidence is shaken. Men who have contracted debts with a good prospect of being able to pay, cannot extricate themselves from an unexpected dilemma. Failure after

failure follows in the wake of the defaulter, destroying the prospects of many careful as well as careless men. Do defaulters ever reflect that their dishonesty carries thousands to premature graves? Observation proves such to be the fact. But reckless men seldom look at consequences, and if they can only raise themselves from the ashes of a financial ruin, which their dishonesty has brought upon a community, their humane curiosity is not sufficiently awakened to inquire how many have been buried in it. Burns truly said "Man's inhumanity to man makes countless millions mourn."

Commercial men, who are supposed to regulate the monetary affairs of the world, should realize the powerful influence they exert over the physical well being of the race. Recklessness by the few should not be tolerated by the many, or at least, not countenanced. Every "false step" brings with it multitudinous failures, and failures in business produce depression of mind, and depression of mind disturbs the harmony of the nervous system, and this leads to mental and corporeal diseases of every variety, according to the predisposition of victims. Do not strive to acquire sudden fortune. Remember that contentment is wealth, and that there is no real wealth without it. He who passes through life with a sufficiency of food and clothing, and a contented heart, has the benefit of all the wealth the world possesses.

11TH. ADULTERATED MEDICINES.

That man's cupidity should so far transcend his native humanity as to lead him to imperil the lives of thousands of his fellow beings by the base adulteration of those things to which the sick resort for relief from their physical sufferings, thus depleting their pockets simultaneously with corrupting the vascular and nervous fluids of their already enervated systems, is a fact almost sufficient, one would suppose, to destroy what little confidence men do entertain in the integrity of each other.

The extent to which the adulteration of medicines is carried, is truly surprising. Says Normandy, "adulteration is a wide spread evil, which has invaded every branch of commerce: everything which can be mixed, or adulterated, or debased in any way, is debased." The report of the examiner of New York for ten months, ending April, 1849, made it appear that "about 90,000 lbs. of various kinds of drugs were rejected and refused admittance at that port

alone. Among these were 3,000 lbs. of opium, 5,000 ounces of iodine, 16,000 lbs. of rhubarb, 34,000 lbs. of spurious yellow bark, and 12,000 lbs. of jalap."

Fig. 20.

ARTERIAL CIRCULATION.

A writer remarks that "more than half of many of the most important chemical and medicinal preparations, together with a large quantity of crude drugs, come to us so much adulterated, or otherwise deteriorated, as to render them not only worthless as medicines, but often dangerous"

Nearly all kinds of vegetable medicines, such as sarsaparilla, yellow dock, elder flowers, uva ursi, rhubarb, Iceland moss and other useful roots and herbs which are thrown into the medicine market, are either adulterated in such a way as to elude the detection of those unacquainted with the botanical descriptions and fragrance and flavor of the pure articles, or have been rendered inefficient by being gathered at the wrong season of the year. So much difficulty have I encountered in obtaining well preserved and pure medicinal roots and herbs that I long since adopted the system of gathering myself, or through agents under my direction, such valuable articles as I have occasion to use in my practice. It is impossible for a physician to predict with any certainty the effects of a prescription upon a disease, if it be prepared from the ingredients furnished by most medicine dealers, however honorable, for if they do not themselves practice adulteration, those of whom they purchased may have done so, and the worthlessness of any root or herb

cured in the wrong season, can only be determined by a trial of its strength.

Those who reside in the country, surrounded with the numerous antidotes which nature furnishes for the diseases of mankind, might easily avoid this species of imposition, and do much to preserve and restore their own health, by acquiring a little knowledge of the medicinal properties of the numerous plants springing up about them, and preserving, in their season, such as are valuable in sickness. It is true that adulterations in roots and herbs are not so positively injurious, as those of mineral medicines, which I shall soon consider, but time is too valuable in sickness to be trifled with by the administration of medicines of an uncertain efficacy.

Fig. 21.

VENOUS CIRCULATION.

The Botanic System of practice has not gained that high reputation for success which it would have done, had its practitioners been their own botanists, and gathered *in their season*, the many health restoring plants which they rely upon.

The industrious farmer knows how difficult it is for him to buy as good corn, potatoes, eggs and butter in the city markets, as he can raise himself. Now, it is just as difficult for the botanic physician to purchase as efficient medicines, at drug stores, as he can himself gather if he only has the industry and enterprise to harvest the annual medicinal products of forest and field.

I have cured hundreds of cases of difficult chronic diseases with botanical medicines *bearing the same name* as those the invalids had been using for weeks and months without benefit, under the direction of other physicians, which fact can only be accounted for by the sup-

position that adulteration or carelessness in curing had been practiced upon those administered by my medical cotemporaries.

There are, of course, some medicinal vegetable productions of foreign countries, which we can only get by importation. Nearly all are generally more or less adulterated, which fact should lead the careful physician to double diligence. Indian opium, for instance, is often adulterated with mud, sand, powdered charcoal, soot, *cow-dung*, (hold your stomach, opium eater!) powdered poppy petals, and powdered seeds of various descriptions. Smyrna scammony frequently contains chalk, guaiacum, jalap, sulphate of lime, gum tragacanth, bassorin, &c., and some samples are met with which do not possess a particle of that drug. The Mexican jalap is of two varieties, one of which is almost worthless. The latter is called male jalap, and often comes mixed with the genuine, and sometimes unmixed. The Spanish liquorice is also much adulterated. Hassal found in twenty-eight samples of the powdered, *eleven* which were adulterated, and the extract can seldom ever be obtained pure.

When so much injury results from the adulteration of vegetable medicines, what shall be said of those arising from the adulteration of mineral medicines, whose counterfeits are often more pernicious in their effects than the genuine? According to Normandy, Bingley and Wakley, calomel is adulterated with chalk, sulphate of barytes, white lead, clay, sulphate of lime; mercury, with lead, tin, bismuth; mercurial ointments, with Prussian blue, clay, etc.; nitrate of silver with nitrate of potash, and so on through the whole catalogue of mineral remedies.

Why, the disclosure of this wholesale deception in drugs and medicines is enough to make a man see red and blue lights in the apothecaries' windows if all the "big bottles" of colored fluid were taken out. It is no wonder that the patients of old school physicians make up ugly faces at their family doctors, and call them hard names. It is hard enough for a man to ride horseback an hundred miles in these days of fast steamboats and railroads, without having a lame rag for a motive power. Mineral doctors, under the most favorable circumstances, are unsuccessful enough without having their remedies perverted.

As a general rule all internal medicines, whether vegetable or mineral, are potent for good or evil. They seldom have a passive effect, but a positive or negative. It is all important, therefore, that they should be just what the prescriber supposes them to be, or serious

mischief must necessarily occur. It is always advisable, when possible, for *the medical practitioner to prepare with his own hands the prescriptions he would give to his patients.* And if he aims to know *precisely* the effect any medicine will have on a disease he must also collect himself the ingredients which enter into its composition. Anything like an approach to unerring success is *impossible* without these precautions. Although the records of crime would indicate that mankind are beginning to place a trifling estimate on human life, its most depreciated value is quite too great to warrant the carelessness, which is often manifested in the preparation and administration of drugs, particularly when the extent to which adulteration is practiced, is so widely known among the intelligent members of the medical profession. I most candidly confess that the main secret of my success lies in the fact that I collect nearly all the plants which enter into the composition of my medicines.

12TH. CHLOROFORM.

In this, as an anæsthetic, we have a nerve-destroyer which, in the hands of men of little or no medical erudition, such as dental surgeons usually are, is doing a world of mischief. The peculiar effects of this powerful anæsthetic upon the mind and nervous reservoir, were forcibly exhibited at a meeting of the dentists of New York, Brooklyn, Williamsburg and Jersey City, at the Dental Academy, in New York, a year or two ago, when the following facts were elicited. "Dr. Main stated that after extracting three teeth of an etherized gentleman, the latter coolly demanded of him ten dollars. He thought he had been driving a chariot with four white horses, at the Hippodrome, and had beaten a span of black horses, and won ten dollars which he had bet. Another man while under the influence of chloroform, thought he was driving a fast team, eating, smoking and drinking. Another thought he had been locked up in the Tombs, and wanted the doctor to go his bail. A boy thought he was fishing; a lady thought she was planting flowers; and an Irish girl—a Catholic—pronounced her priest and her religion a humbug. While having eleven teeth extracted by Doctor Marvin, of Brooklyn, a lady, after having taken a large quantity of chloroform, screamed violently and thought they were squeezing her head between the hinges of a gate, and that they afterwards threw her among a drove of cattle, which tried to gore her to death with their horns. Dr. Griswold, of Williamsburg, stated that recently, after he had given chloroform

to an athletic man, the owner of a distillery, the latter sprang up, and, with clenched fists, swore violently, and on returning to consciousness, stated that he thought he was in his distillery, and that one of the men had carelessly produced some derangement in the machinery, at which he became enraged. Dr. Rich said that a young lady, having a remarkably fine head of hair, thought, while under the influence of chloroform, that her brother, by whom she was attended, plucked out a quantity of her hair, *and she persists in that impression to this day.* A gentleman, under the same influence, thought he was in heaven, and described the glorious vision he saw there. Another man, under the hands of Dr. J. W. Smith, of Brooklyn, on recovering from the intoxication of chloroform, thought he had been in hell, and the idea took so firm a hold of him afterward that he could not dispel it, and he is now, in consequence, in the Lunatic Asylum! A lady who had received chloroform from Dr. Smiley without any immediate unpleasant effect, got up on the same night and went, *en chemise*, to a fire in the neighborhood, and did good service in inciting the firemen to the performance of their duties. Several instances were also related in which amorous and other improper manifestations had been manifested by ladies while under the excitement, and in which they imagined that insults had been offered them, and could not be dissuaded from that impression after returning to their natural state."

Although these effects are pernicious enough, immediate death not unfrequently ensues from the inhalation of chloroform. Dr. Warren knew of ten cases of this kind, all occurring in a little more than one year, and it is difficult to judge how many more, unknown to Dr. W., might have died from its effects. The same authority says that "were he obliged to substitute chloroform for ether, in inhalation, he would do it with anxiety." Here is an eminent physician who dares not substitute it for ether, when dentists and many illiterate tooth extractors all over the country are making common use of it!

The electrical effect of chloroform on the system is indicated by the strange hallucination and insensibility produced in the mind and body of one under its influence. In addition to the powerful solvent property of chloroform, and its consequent effects on the alkalies or negative principle of the animal organism, it produces a kind of mesmeric phenomenon, ungoverned by the will of a skillful operator. A power is used to benumb the sensibilities and destroy the nervous

equilibrium of the system, and none employed to remove these effects. Nature has to make a struggle, and sometimes an unsuccessful one, to throw them off. If a person is mesmerized or psychologized, the same operator who induced the suspension of sensorial power, restores it again If he does not, injurious results are sure to follow. Probably a majority of my readers have known of persons being mesmerized by novices in the science, who, having produced the influence, knew not how to dispel it, and how serious have sometimes been the consequences! Now chloroform produces a kind of mesmeric or psychological effect in the system, and then, instead of possessing human intelligence to throw it off again, this work is left for disabled nature.

Chloroform ought never to be employed as an anæsthetic, except in very painful surgical operations, and not then, unless all other means for benumbing the senses fail. Mesmerism should be tried first. If the sufferer is a susceptible subject, any operation, however painful, may be performed while the patient is under its influence. When all is over, the experienced mesmeric operator can remove the influence and restore the system to its normal condition again.

Ice has also been highly recommended, and might be resorted to when mesmerism fails. A writer in the London Illustrated News, supposed to be the editor of the Lancet, says that "the experience of the past few weeks has proved to his complete conviction that local anæsthesia can be obtained by the benumbing influence of ice, without resorting to the administration of chloroform, which, by its subtle power, renders insensible the system generally, and occasionally produces those fatal effects to which almost every surgeon can bear testimony." "I have tried the ice," continues the same writer, "in several cases, in both hospital and private practice, and in almost every instance the success was evident, the patient, when blindfolded, being ignorant of the use of the knife." Cases which cannot be effected by either mesmerism or ice, should have recourse to strong chloric ether, which is far preferable to chloroform, because its effects are not so injurious or dangerous.

For extracting teeth I question the expediency of employing any presently known anæsthetic, except mesmerism. Seldom are dental operations attended with pain of sufficient duration to warrant the employment of any. It is reported that a physician in Philadelphia has invented what he terms galvanic forceps, which are intended as a relief to the pain of extracting teeth. They are said to be a com-

bination of the ordinary forceps, with a galvanic arrangement attached, whereby the nerve of the tooth may be charged with a galvanic influence, and its sensibility suspended. Such are the numerous uses to which electricity, in its various forms, may be successfully adapted, the story looks plausible; but if untrue, it would be well for the dental profession to exercise their ingenuity, in electrical experiments, to ascertain if that element cannot be made to accomplish an object so desirable. If not, the administration of chloroform as an inhalant should be dispensed with by dentists and doctors who extract teeth, and it would be well if its employment by them were interdicted by statutory law. No law would be necessary were the public better acquainted with its nature and effects; but so long as so little is known of it by the masses, who are ever ready to avail themselves of any thing to silence pain when about to undergo a surgical operation, however trivial, the use of it by those not qualified by medical education, should be forbidden.

13TH. EXCESSIVE STUDY.

"The mind, just like the stomach, takes
Its food for pleasure, profit, use,
Reflection all the virtue makes,
And serves it for its gastric juice."

The mind may be overloaded as well as the stomach. Reading too constantly and studying too closely, is as injurious to the mind and nervous system as is eating too much to the stomach and blood. The back doors of many of our Colleges and Seminaries open into lunatic asylums and cemeteries. The literary world is full of physical wrecks, and many a mind has become bankrupt by trying to acquire knowledge too fast, like the ambitious business man who fails, through his over exertions to get rich. Avarice for knowledge is generally more unsuccessful than avarice for money, but while the failure of the former leads to an empty head, that of the latter only leads to an empty pocket. Every man is born into the world with a certain amount of mental capacity which will admit of cultivation, but not of forced growth. By gentle discipline the mental powers of a man will gradually develop, and reach maturity as early as good physical health will permit, but when the student attempts to crowd his mind with learning all at once, he not only fails to reach the high summit of his inordinate ambition, but often falls a helpless imbecile.

Studies, to be improving, must be pursued with a relish, the same as good edibles are sought after by the epicure. If the mental appetite is too craving, gratify it sparingly, as every man should his corporeal appetite; if too dull, nurse it gently. An observance of this rule will prevent our institutions of learning from sending thousands of *mental dyspeptics* into the world to flash and flicker with intellectual light, and then go out like a used up tallow candle.

14TH. EXCESSIVE LABOR.

Foolish pride and aspirations for wealth, more frequently than necessity, drive men to excessive labor. Both the mental and physical system demand rest, and inflict a penalty on the individual who refuses to grant it. Not only has nature ordained night as a season of repose, but the God of nature has commanded that one day in each week shall be observed as a period of rest for all human beings, and has so impressed the necessity of such a regulation on the human mind, that, however diverse may be the religious opinions of different people, all have a day *professedly* set apart for that purpose. Thus, Sunday is appointed by the Christians, Monday by the Grecians, Tuesday by the Persians, Wednesday by the Assyrians, Thursday by the Egyptians, Friday by the Turks and Saturday by the Jews. The strict observance of the day is, however, unusual. The business man, although he be a constant attendant at church, is apt to look over his accounts and lay down his programme for the week, while the literary character meditates on what he will write or speak, regardless of the sentiment of the Roman philosopher, Seneca, who said that "the mind of man is like the fields, the fertility of which depends on their being allowed a certain period of rest at the proper season." And all this over-work is for the frivolous purpose of driving a prettier span of horses than some neighbor, wearing a fine coat, holding larger estates, or possessing more of that attractive commodity—gold! The best remedy for this evil is *contentment*. This should be cultivated, for it is *wealth*. A contented man with fifty cents in his pocket, and a clear conscience, is far wealthier than the millionaire, whose Sunday, week-day and night dreams are all about gold, and how more may be accumulated. Dismiss your avocations at night and on Sundays and acquire contentment if you would preserve your nervous systems in health, and your minds in happy placidity.

15TH. MELANCHOLY.

Some writer has facetiously remarked that "there are many people who keep pet griefs as certain other people keep lap-dogs, that they carry about with them wherever they go. These are the people who feel the best when they feel the worst, and are never so happy as when they are utterly miserable. Like the maiden 'who milked the cow with the crumpled horn,' they are always '*all* forlorn,' and they keep a figurative dog to be 'tossed,' and a cat to be 'worried,' and a rat to be 'killed' upon every possible occasion. They turn down the leaf at 'O that my head were waters, and mine eyes a fountain of tears,' as if griefs were like bulrushes, and flourished best in wet places."

Melancholy seriously disturbs the circulation of the nervo-electric fluids, and causes an undue consumption of the latter in the brain. Melancholy people are almost invariably dyspeptic because a full supply of the electric element is withheld from the pneumo-gastric nerve, which conveys from the brain the force that gives tone and activity to the digestive organs. Despondency of mind, in fact, affects all the organs of the system, more or less, on the same principle; the brain consuming, in its excitement, more than its natural allowance of nervo-electricity, and as a consequence, withholding the vital element from the various organs which are dependent upon it for healthful action.

Cheerfulness should be cultivated by every one. It is an antidote for many ills; and a laugh is of immense value, physiologically. It produces an electric effect throughout the whole system. It is felt in no one place particularly, but every nerve, muscle and fibre is simultaneously titillated with the electric flash from the brain. All who have melancholy friends should try to excite them to laughter. A few hearty laughs will cure the most desperate case of melancholy. It is a Christian duty to look cheerful and a blessed privilege to laugh. "Away with melancholy."

CHAPTER III.

Common Sense Remedies.

HAVING glanced at the proximate and many of the remote causes of disease, next in order is a consideration of appropriate remedies. In pointing out and commenting on these, I expect to encounter the universal denunciation of old school physicians, and some opposition from the new.

I am often asked the question—"To what school of medicine do you belong?" My reply is—no school, except the school of nature, which I shall christen the *Utilitarian School.* I have been a diligent pupil of all the old masters, and have investigated all systems. I am now a devoted pupil of nature; intuition is my counselor; common sense my pharmacopœia. In other words, I am *independent*—bound by the tenets of no medical association, and consequently prejudiced against no new discovery which can be made subservient to suffering humanity. Whatever I find in earth, air, water and science, useful as remedial agents, I appropriate, and resort thereto, when occasion demands, without fear of being confronted by a conservative brother who sees merit in nothing which has not the sanction of antiquity.

I have wasted much time in the exploration of what is inappropriately termed medical science, but have always found instruction and entertainment in the great book of nature. The literary productions of old school writers are often interesting and contain much sophistry; nature is refreshing and pregnant with truth.

Hippocrates flourished over eighteen hundred years before the modern science (?) of medicine was founded. He was even unacquainted with the circulation of the blood; yet he was styled the "father of medicine," and his success in curing disease so excited the superstition of the ancients, that many of them believed he stayed the plague of Athens. Some are born physicians. Hippocrates was. Every man possesses a special talent for something, and he who becomes a doctor, when nature designed him for a reaper, will mow down human beings when he should have cut wheat.

Redfield, the physiognomist, says that he can tell who are natural physicians by the bones in the face. He describes them as men having an elevation of the arch of the cheek bone, called the zygomatic arch. He says that one possessing this peculiarity, other things being equal, "is not only inclined to study and practice, but will have a certain instinct for it, which will materially assist his scientific knowledge." "Without this faculty, and its sign, in a superior degree," continues that popular physiognomist, "no person ever attained to skill and eminence in the medical profession, or even made a good nurse. The North American Indians have this sign very large, one of their characteristics being high cheek bones, and they are equally remarkable for their 'medicine men'—so much so, that some persons consider the name 'Indian Doctor' a sufficient offset for ignorance and presumption." With regard to my natural qualifications, my interested readers will pardon me for saying that, besides possessing the sign Redfield describes, my medical proclivities manifested themselves at an early age. My parents have often reverted to my boyhood, when pill-making, &c., entered conspicuously into the diversions in which I indulged, and facetious neighbors dignified the contents of my juvenile waistcoat with the title of "Doctor."

With these remarks, prefatory and egotistic, I will enter upon the legitimate mission of this chapter, which is to advocate the merits of those classes of remedies which have rendered my practice so eminently successful and popular, and to expose some of the most prevalen' medical errors of the day.

VEGETABLE MEDICINES.

The trees, shrubs, flowers and plants, I contend, possess, in a refined form, all the medicinal properties of the mineral kingdom. Their numerous and far-reaching roots span rocks, ramify in various strata of soil, and extract from good old mother earth her hidden medicinal treasures, which are transposed to regions of air, light and heat, where chemical changes are effected which at once deprive them of their grosser characteristics, and render them far more efficacious and harmless, as antidotes for human infirmities, than they can possibly be made in the laboratory of the most skillful chemist.

It is said that "if a bone be buried just beyond and a little at one side of a root, the latter will turn out of its direct course and go in pursuit of the bone, and when it finds it, it will stop and send out

numerous little fibers which, forming a net-work, will envelop the bone; and when all the nourishment has been sucked out of it, the root will again pass on its way, and the temporary fibers thrown out around the bone will gradually disappear."

Fig. 22.

A SPECIMEN OF WHAT CHEMIST NATURE PRODUCES IN HER LABORATORY.

Thus the inflexible relic of a decomposed carcass may be transformed into a beautiful flower! What human chemist can do this? And yet it is trifling, compared with what nature is daily producing in her boundless laboratory. The roots of herbage and trees have the same power to extract the useful properties of minerals, and, in a measure, derive their nourishment from the various ingredients of the soil. An intelligent writer remarks that "one of the most remarkable properties of plants is the power with which they are endowed of selecting their food. The soil contains various kinds of aliment for vegetation, and the little fibrous roots that fill the ground select from the whole, and suck in through their minute openings just the kind suited to the nature of the plant or tree to which they belong. All plants will not thrive on the same soil, any more than all animals will live on the same kind of food. Grass and grain require a soil that contains an abundance of silica or flint."

It is this power of selecting nutriment which renders plants so various in their medicinal properties. When we reflect that the earth is covered with an endless variety of vegetable products, no two of which possess precisely the same properties, how absurd appears the conduct of those who wander from the vegetable to the mineral world in search of remedial agents!

Paracelsus was the Adam of the medical world. Through him came sin into the profession. He was the introducer of mineral medicines. He is the prototype of the old school. Read what his biographer says of him:

"Paracelsus was a man of most dissolute habits and unprincipled character, and his works (opera) are filled with the highest flights of unintelligible bombastic jargon, unworthy of perusal, but are such as might be expected from one who united in his person the qualities of a *fanatic* and a *drunkard.*"

Gross minds beget gross ideas—demand gross food and gross remedies. They naturally turn from the study of the green trees and beautiful flowers with which the brown earth is adorned, and whose luxuriant branches point upward to Heaven and Health. Thus it was with Paracelsus, who, in the fifteenth century, exalted quicksilver, or quack-silver, usually called mercury, to the family of medicines. For this great exploit he earned the name of *Quack.* This epithet was never applied before. His followers like his remedy, but not his name, and have ever since been trying to shift it upon the Botanics, who desire neither the "game" nor "name." But those who know the origin of the term, cannot, with propriety, misapply it.

> They may loom up in science as high as they will,
> The odor of quack must stick to them still.

The value of mercury as a remedial agent has been ably handled in the Journal of Medical Reform, and for the benefit of those whose "one cure-all" is the Blue Pill, or other preparation of mercury, I cannot do better than copy it in full:

"If evidence were wanted," says the writer, "to prove the injurious effects of the various preparations of mercury on the organism, we know not where we may look for more decided testimony than is to be found in the admissions of those physicians who have the most extensively employed them in their own practice. The same amount of evidence against any other article of the *materia medica* would have rendered its use a matter of universal reprehension. It would, doubtless, have become obsolete, or, possibly, have been made a penal offence, under all circumstances, to exhibit it.

"That mercury has destroyed more lives than it has saved, and entailed upon the human family a train of disorders, and an amount of suffering past computation or description, no physician who is not wholly wedded to the errors of early education, or a slave to the

authority of musty books and the edicts of self-constituted medical tribunals, will venture to deny. The system of medical training in this country—the abject deference which is rendered to the opinions of the graybeards of the profession, the ceaseless iteration in the ears of students of the stale axioms and mouldy dogmas of "the fathers," and the love of mental ease and indolence which characterizes so large a portion of the old school physicians, explain the reason why so many worthless and destructive remedies are still retained. Said a physician not long since—'We discover, first, the pathological condition of our patients, then administer such remedies as *the books* prescribe. If they live, well; if not, they die *secundum artem*.' There spoke a host of Allopathic practitioners and professors, who are too submissive, or too lazy, or too stubborn to think, act and investigate as becomes a free, intelligent being, living in a day of light, improvement and progress.

"Some people have insensibly learned to regard this metal as indispensable—as possessing such peculiar virtues and adaptability to cure the ailments to which mankind are subject, that the resources of the physician would be fatally restricted if he were deprived of its use. But if in all the range of argument, the experience of the medical world and the history of the Healing Art, one sound, irrefragable reason can be advanced in proof of this supposition, we will cheerfully abandon all further opposition to its employment. And more, if in the animal, mineral, or vegetable kingdom a solitary agent can be found, the use of which has caused, universally, more permanent suffering, or wrought more disastrous consequences to the human frame, we will confess our ignorance, and charge to the account of prejudice or stupidity all the disfavor it has encountered from both friends and foes.

"If, for a long succession of years, the milder as well as the severer forms of disease had not yielded to the influence of harmless remedies, our attack might be considered misdirected and impertinent. But, fortunately, the truth lies in the reverse of this; and it is an insult to the honesty and intelligence of a large class of physicians, both in this country and in Europe, who are combating successfully with every phase and character of physical disorder, without in a single instance subjecting the systems of their patients to the effects of mercury, to tell them and the world that the changes from a state of illness to a condition of health cannot be promoted without its agency, or if at all, not as well, as speedily or as safely.

Opinions and speculations here are valueless. FACTS, unanswered and unanswerable, can be and have been brought to support our assertions. It is well known by all who have paid any considerable attention to the history of medicine in the United States, that it is but a few years since mercury was the principal remedy depended upon by Allopathic physicians for the cure of scarlet fever. If the judgment of the "Faculty" was to be taken as final, how does it happen at the present day that but few intelligent physicians can be found who ever venture to give it in that disease? If it were indispensable twenty years ago, nothing has occurred in the nature of the disease itself to render it needless and positively hurtful now. A medical journal of the old school, published in this city, told its readers, a few months since, that the unprecedented success of Botanic physicians in treating Scarletina, and the great mortality consequent on a course of mercurial treatment, had *forced* "the Profession" to abandon it altogether. The truth is, our Doctors, learned though they may be in the mysteries of the Art, are not infallible—they are liable to mistake; and if they have committed one such fatal error, they being judges, in so important a matter as life and health we may with propriety challenge the correctness of their opinions, regarding its necessity and virtue in the cure of other maladies.

"We well recollect during the early prevalence of an epidemic that visited some of the counties of this State five or six years since, that this 'indispensable' remedy was exhibited without stint or scruple in those cases that came under the charge of Allopathic physicians. The proposition that every effect must have a cause, probably set the people to inquiring why it was that a very large majority of the cases so treated terminated fatally, while, with scarcely an exception, those patients who were attended by botanic practitioners recovered. And the inquiry was a very natural and a very proper one. The 'accumulated wisdom of a thousand years' said 'give calomel, and give it again and again;' and it was given; but new graves were dug day after day notwithstanding. Mercury was *not* indispensable here. It was a withering, blasting scourge to whole families. Death needed no better auxiliary. The contrast in these cases is too important and too significant to be wholly disregarded.

"If a *substitute* for mercury is demanded, we answer, no substitute is wanted,—none required. It is a pernicious poison, that has

no legitimate right or claim to a place in the list of MEDICINES adapted to the necessity of a human being; and it was hundreds of years after it stole its way into the *materia medica* before any but the most reckless and empirical ventured to employ it. Agents there are in rich profusion, adapted to the cure of every physical ill—safe, innocent and efficacious. God has scattered them with an unsparing hand wherever man suffers, or an antidote is required. In the days of his primitive simplicity—before he had begun to seek out 'many inventions' or had learned to disregard the instincts of his own nature, man turned to the vegetable kingdom in the hour of sickness; and if we do not mistake the signs of the times, the day is not far distant when he will be brought back to a just appreciation of the wisdom of his original choice."

Fig. 23.

A SALIVATED PATIENT.

It is difficult to regard the system which Paracelsus introduced in any other light than a great stumbling block in the way of progress in the healing art. Had the undivided attention of the medical profession, for the past three hundred years, been turned in the right channel—had physicians studied more to ascertain the proper-

ties of plants and left the mineral kingdom to the researches of professed mineralogists, what sublime results would reasonably have accrued for the promotion of the skill of the physician and the convalescence of the sick of the present century! Like unto the children of Israel, a large majority of medical professors have been worshipping the metal calf which Paracelsus,—not Aaron,—set up for them, seeing which, the anger of Æsculapius waxed hot against them, and he commanded them to "go in and out from gate to gate throughout the camp," in the language that Moses used to the idolaters of old, "and slay every man his brother and every man his companion, and every man his neighbor." [Exodus xxxiii. 27.] How many have been slain since the God of medicine issued this edict, there are not figures enough, Roman or Arabic, to compute.

"The present system of medical education," truly remarks a newspaper writer, "imparts a knowledge of *books*, and the *precedents* established by certain ancient practitioners; it explores the narrow channel of usage and custom, deferring to names and opinions, but neglects the study of the *natural* remedies by which we are surrounded. In the commonest of our fields, springing unnoticed by the brook-side, and among the pastures, or growing neglected along stone walls, are hundreds of plants possessing valuable medicinal properties, but of which, *not one in forty* of our physicians can tell the name, much less the *use*. And yet nothing can be plainer than the fact that Nature has furnished a remedy for every disease, and that nearly every remedy exists in the vegetable kingdom. Why then is the study of the plants, the roots, and the herbs of the field, the forest and the mountain-side neglected in the education of those who are styled doctors? Is the acquisition of Latin terms and a general reliance upon mercury and the knife deemed to be more important or safe?"

Now and then an old school physician is met with who voluntarily confesses the results of his medical experience and research. Prof. Magendie, of Paris, is reported to have addressed the students of his class in the Allopathic College of that city in the following language:

"GENTLEMEN: Medicine is a great humbug. I know it is called a science—science indeed! It is nothing like science. Doctors are mere empirics when they are not charlatans. We are as ignorant as men can be. Who knows anything in the world about medicine? Gentlemen, you have done me the honor to come here to attend my

lectures, and I must tell you frankly now, in the beginning, that I know nothing in the world about medicine, and I don't know anybody who does know anything about it. Don't think for a moment that I haven't read the bills advertising the course of lectures at the Medical School; I know that this man teaches anatomy, that man teaches pathology, another man teaches physiology, such-a-one therapeutics, such another materia medica—*Eh bein! et apres?* What's known about all that? Why, gentlemen, at the school of Montpelier, (God knows it was famous enough in its day!) they discarded the study of anatomy, and taught nothing but the dispensatory; and the doctors educated there knew just as much and were quite as successful as any others. I repeat it, no body knows anything about medicine. True enough we are gathering facts every day. We can produce typhus fever, for example, by injecting a certain substance into the veins of a dog—that's something; we can alleviate diabetes, and, I see distinctly, we are fast approaching the day when phthisis can be cured as easily as any disease.

"We are collecting facts in the right spirit, and I dare say in a century or so the accumulation of facts may enable our successors to form a medical science; but I repeat it to you, there is no such thing now as a medical science. Who can tell me how to cure the headache? or the gout? or disease of the heart? Nobody. Oh! you tell me doctors cure people. I grant you people are cured. But how are they cured? Gentleman, nature does a great deal; imagination does a great deal. Doctors do . . . devilish little . . . when they don't do harm. Let me tell you, gentlemen, what I did when I was the head physician at Hotel Dieu. Some three or four thousand patients passed through my hands every year. I divided the patients into two classes: with one I followed the dispensatory, and gave them the usual medicines without having the least idea why or wherefore; to the other I gave bread pills and colored water, without, of course, letting them know anything about it . . . and occasionally, gentlemen, I would create a third division, to whom I gave nothing whatever. These last would fret a good deal, they would feel they were neglected (sick people always feel they are neglected, unless they are well drugged . . . . (*les imbeciles!*) and they would irritate themselves until they got really sick, but nature invariably came to the rescue, and all the persons in the third class got well. There was a little mortality among those who received but bread pills and

colored water, and the mortality was greatest among those who were carefully drugged according to the dispensatory."

Now, this is talking right out. Here we have the experience and consequent inferences of an eminent Allopathist. What do his brother professors think of it? We shall not probably know what they think, for few of them are so candid as this one. When it is borne in mind that the curability of any disease is determined in each school of practice by the results of its labors, there is one point particularly noteworthy in Prof. Magendie's address. He asks—"Who can tell me how to cure the headache? or the gout? or diseases of the heart?" and then replies—"nobody." This conclusion, as well as that of many other of his brother professors, that consumption is incurable, is manifestly drawn from the results of the Allopathic practice. It is not strange, then, that he pronounces the diseases mentioned incurable, for it is contrary to the rules of Allopathy to acknowledge any skill outside of its bigoted ranks. Did its members not willfully shut their eyes to the astonishing cures effected, of these very diseases, by those who have entered a more comprehensive field of medicine, they would not give utterance to such truthless assertions. If Prof. Magendie will regale himself for one season in New York, and spend his leisure moments in my office, I will convince him, by the palpable results of my practice, that the diseases he enumerates can be cured.

The closing portion of his address, concerning his experiment with dispensatory medicines, bread pills, colored water, &c., is also suggestive. He says there was the greatest mortality among those who took his drugs; a little among those who used the colored water, and that those to whom he gave nothing got well. This result is just what any man of a particle of common sense would have expected. His mineral drugging, as a matter of course, only added another load to nature, already burthened with disease; and colored water was not nutritive, but, on the contrary, poisonous, as almost all dye stuffs are. The presence of this in a weak stomach could not fail to have something of an injurious effect.

There are certainly hopes of the reclamation of this professor. He may yet learn that all the sick man needs is simple nourishment adapted to the nature of his system and disease, such as can always be found in the forests and fields. All enfeebled nature wants is a little mild assistance, and if (to use the language of tree-climbing boys) you attempt to "boost" too fast, you are sure to upset her

The brute creation is more enlightened to-day in medicine than the Allopathic profession. When the horse feels unwell, he eats dock and other herbs, if he can get them, and recovers. The cat, subject to fits, eats catnip and dispels the disease. If any of my readers have a sick cat, just give her some catnip herb, and observe the delight which she manifests in rolling on it, snuffing its aroma, and finally eating it. Naturalists say that the fox, rabbit, and many other animals, keep themselves from madness by the use of the medicinal plants with which their wild abodes are surrounded; and it is related of the grizzly bear of California, that, when he gets wounded, he gathers leaves from the bush called "grease-wood," and forces them tightly into the wound. If the animal had the intelligence (or rather the want of it) to call on an Allopathic physician, he would probably get a *mercurial plaster!*

Botanic physicians deserve censure for not being more particular in obtaining *good* herbs and roots. They have often earned an unfavorable reputation by their remissness, when fame would have otherwise been their reward. Herbs and roots gathered in the wrong season of the year are worthless. Two-thirds of those sold in Botanic stores are, on this account, but little better than chips. Then, too, medicinal plants should always be raised and gathered on their native soil. Fishbough very correctly says, that "the vegetation indigenous to any particular clime or locality always bears a relation to the temperature, soil, and moisture prevalent in that locality. The mountains of tropical regions, which rise from a realm of perpetual summer to an altitude of eternal snow, are clothed at their different elevations by different genera and species of plants, adapted to all the gradations of temperature, from the tropic to the arctic. An artificial transplantation of any of these vegetable forms is either fatal to the latter, or else causes in it a gradual change of constitution until it is fully adapted to its new condition." This change in constitution is a virtual change in medicinal properties. Those who cultivate, either by transplantation or sowing seed, any medicinal plant, in a soil not natural to it, fail to obtain the plant with its full and native properties. Consequently, all who raise in a garden herbs, &c., of every variety, for the market, contribute, in a degree, to the ill success of those physicians who purchase them. As stated in a preceding chapter, one great secret of my success is, that I gather myself, or by agents, the vegetable remedies I employ.

THERAPEUTIC ELECTRICITY.

Science has heaped wealth in the lap of Commerce—to the healing art she has been a meagre patron. The commercial man cordially receives her magnificent contributions; the medical devotee looks with jealous eye upon her beneficent discoveries. The swift gliding locomotive whistles by the storehouses of the merchant and the luxuriant fields of the planter; Calomel hobbles along on crutches, slow as the old post coach, before the doors of old school practitioners. A few bold spirits have preferred professional martyrdom to old fogy despotism. To such the public is indebted for what little advancement has been made in the healing art in this country. Here a physician is not considered orthodox who does not keep a strait coat tail behind him. To look to the right or left for new agents to relieve the sufferings of mankind, discloses professional heresy punishable with wry faces and shrugged shoulders. Happily for suffering humanity, our transatlantic neighbors have been more tolerant and given to investigation. Hence it is that the therapeutic value of the electrical discoveries of Galvani, Farraday, Cross and others, have been tested in the universities and hospitals in England, France and Germany.

Galvanism, Electro-magnetism and other forms of electricity are now extensively employed in the best institutions of the old world, and according to the testimony of Farraday, Golding Bird, Donovan, Le Roy d'Eliolle, Cross, Palaprat, Smee, Matteucci, and other distinguished medical writers, with the most flattering results.

If my theory, as given in Chapter 1st, is correct, regarding the important part which electricity performs in the animal economy, it does not require facts or arguments to prove the value of electricity as an auxiliary agent in the treatment of disease. The fact is rendered self-evident. It will be remembered that I there assume and give facts to prove that the same agent (electricity) which the Almighty employs to move and regulate the sublime planetary world, is used by the mind to move the feet, arms, limbs, and perform the various functions of the animal mechanism.

The only plausible objection to this theory which I have met with, is given by Dr. Ure, who says that *electricity* will pass through nerves which are almost severed and divided, and produce contractions in the muscles over which they are distributed, while the *nervous forces*

will cease to pass through and perform any muscular motion when the nerves are thus lacerated.

To one who has failed to discover the almost omnipotent power and instinctive wisdom of the mind, this objection would appear decisive. But my reply is that *animal electricity is controlled by the mind to which it belongs, while chemical or other electricity is controlled by the will of the operator who employs it.* In other words, animal electricity is governed in its distribution through the system by the intelligent mind whose seat is in the brain, and who *voluntarily withdraws it from any nerve which may be disabled, lest the severed or divided nerve be entirely destroyed by the continued performance of its legitimate function while in this sorely lacerated condition.* The mind constitutes what is called the *vis medicatrix naturæ*, or healing power in any animate body, by which, when diseased, the system is assisted to recover. It is the "family doctor" of the organs, over which it presides. Consequently, notwithstanding the mind has not the power to resist electricity artificially applied to any disabled nerve, by an operator, it can and *does* control its *own* electricity, and will not allow it to traverse a wounded nerve. Nor can this peculiar power of the mind be overcome by the *will* in such a case, any more than the will can arrest the action of the involuntary organs, which are under the control of the immortal principle or mind of the individual; and who can stop the pulsations of the heart by an effort of the will?

The perfect control which the mind has over its own electrical agent is again exhibited when business or family troubles or bereavements overtake an individual. The brain, stimulated to painful activity, consumes more than its due proportion of the nervo-electric fluid, and the mind withdraws enough from the stomach and vital organs to supply the demands of its most important dependent. In consequence of this physiological "panic," the heart, liver, stomach, &c., (corresponding to the merchants) fail, and the brain (bank) takes care of itself. In diseases induced by mental depression, we therefore find electricity valuable as an assistant, although, in consequence of the blood derangements entailed thereby, insufficient unless supported by nutritive and purifying vegetable remedies.

It is the interruption or partial withdrawal of the nervo-electric circulation, which causes what we term "nervous diseases;" and there are more affections of this character than were ever dreamed of in the Allopathic philosophy. There is often an inharmonious action

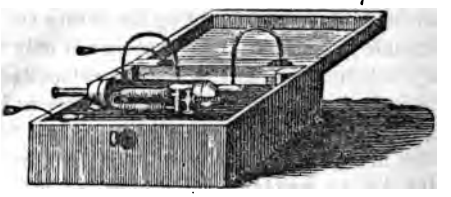
of the nervous forces in lung, liver, heart and kidney diseases. All these organs perform their appropriate offices under the stimulus of electricity. For instance—the lungs are not expanded and contracted by the inhalation and exhalation of air, but the diaphragm is thrown downward, and the air vesicles opened by the nervo-electric forces acting on the muscles controlling the former, and on the little muscular fibres and tissues composing the latter. By this electric movement, air of necessity rushes in to fill the vacuum; when the same forces contract them, exhalation necessarily follows. In diseased lungs and shortness of breath, there is frequently an interruption of the nervo-electric circulation, and hence the necessity of electrical remedies of some sort, in addition to internal medical treatment, in the cure of many cases of pulmonary disease.

The same remark holds good in respect to many disorders of all the vital organs. In dyspepsia, the interruption of a free passage of nervo-electricity through the pneumo-gastric nerve leading to the stomach is not unfrequently the principal cause. Cut the pneumo-gastric nerve in the neck of any animal, and the process of digestion ceases at once—apply the galvanic battery to the end leading to the stomach, and it is immediately resumed. The further this subject is investigated, the clearer the reader will see the value of electricity in the treatment of disease. "Water," it has been beautifully remarked, "is valuable as a medical agent, but its efficiency consists, not in the element itself, but in its subservience as a handmaid of electricity. Electricity is the queen of medicine: water merely a pool in which she bathes her feet." The author of this quotation is, however, a little sanguine, and makes electricity the queen instead of duchess.

Golding Bird, who has devoted much time to the investigation and application of electricity, says: "Conscientiously convinced that the agent in question is a no less energetic than valuable remedy in the treatment of disease, I feel most anxious to press its employment upon the practical physician, and to urge him to have recourse to it as a rational but fallible remedy, and not to *regard it as one either expected or capable of effecting impossibilities.*" The same writer adds that "electricity has been by no means fairly treated as a therapeutic agent, for it has either been exclusively referred to when all other remedies have failed,—in fact, often exclusively, or nearly so, in hopeless cases,—or its administration has been carelessly directed, and the mandate, 'Let the patient be electrified,' merely

given without reference to the manner, form, or mode of the remedy, being for once taken into consideration."

Fig. 24.



AN ORDINARY ELECTRO-MAGNETIC MACHINE.

In this country, mechanics make various electro-magnetic machines and sell them for family use. A book usually accompanies the machine; and, if not a book, at least a circular, professing to give unerring directions for its application in different diseases. Many of these mechanical electricians prefix Dr. to their cognomen, as if to give their imperfect directions the weight of medical authority. Not one of these books or circulars that has ever come under my eye, can be safely relied upon. They abound in errors which would be laughable, were it not for the reflection that they mislead the "drowning man catching at straws." It is a serious matter to trifle with a man who has lost health and perhaps all hope of recovery.

Think not from these remarks that it is an easy matter to give correct directions for popular use. So much depends upon the constitutional peculiarities of the patient, the complications which exist, and a correct knowledge of the disease or diseases, no such chart can be safely put into the hands of those who do not make pathology, anatomy, physiology, and electrical therapeutics a study. Much must necessarily depend upon the diagnostic skill of the operator, and his judgment in making the application. Each complication which the patient has, must be duly considered in its relation to the others. Constitutional causes must also be duly considered. The proper course for a physician to pursue, who wishes to obtain proficiency as an electrical operator, is to place himself under the *personal* tuition of a competent electrician, and during his pupilage witness all important operations, just as he who wishes to become a good surgeon, attends the cliniques, and witnesses the dexterity exhibited by his instructor in the use of the knife. An invalid who wishes to employ electricity without submitting to the experienced operator, should obtain from an intelligent source, special directions for his individual case.

Guided by the directions which are furnished by mechanical electricians, isolated cases do occur wherein remarkably successful results are realized. "Accidents will happen in the best of families;" and,

inasmuch as electricity possesses peculiar curative powers, now and then one who knows nothing of the science of electricity; knows nothing of the peculiar structure of the human organism; a mere novice in the art of detecting the nature and extent of a disease, will stumble into success. Many more not only fail to derive benefit, but injure themselves by random experimenting. Fatal results may not be as likely to follow as if the same persons had plied themselves with blue pills and other Allopathic inventions, for the reason that lightning in any form is a safer agent to deal with. It is related of Ben Johnson, a revolutionary soldier, of Millford, Mass., that he was struck with lightning several years ago, and remained insensible for two days, when two doctors were called, who said he would die; but just at that moment his power of speech returned, and he ejaculated: "I have stood cannon, musket-balls, and bayonets, and I can stand thunder and lightning if the doctors will only let me alone." The old man recovered. Now no one supposes that such an overwhelming dose of mercury would have ever let the veteran soldier speak again. It takes a vast amount of electricity, even in the form of a bolt of lightning, to kill any one. Hence the seeming impunity with which electro-magnetic machines are employed by persons who do not know the negative pole of the instrument from the positive, and who are much less acquainted with the nature of the various currents which may be employed.

The reputation of electricity has suffered by its bungling application in the hands of inexperienced operators. As the effect must depend upon the form and mode of application, it is obvious that no one should apply it without definite instructions, unless he is acquainted with the science of electricity and has some knowledge of anatomy and pathology.

I have observed with regret the infatuation some men exhibit after witnessing its beneficial effects in one or two cases. Having cured themselves or perhaps a neighbor with electricity, the conceit at once overcomes them that they are *natural* physicians, and that that agent alone is capable of healing every ill that flesh is heir to, while perhaps they are "natural ninnies," tampering with the sublime phenomena of an omnipotent and mysterious element.

Such operators, unschooled in physiology and the science of *materia medica*, have done much mischief with electrical machines, often applying them when there was no occasion, and with a power too intense for even a person in health to endure. Some parts of the hu-

man system are more sensitive than others, and while a powerful current is necessary to affect some organs, a weak and almost imperceptible one is required to have a beneficial effect on others. But the most contemptible men are those who, taking advantage of the reputation electricity enjoys, set up regular "Peter Funk" establishments, from which they advertise to cure every disease that flesh is heir to by an operation or two. While skillful electricians are, by their good works, imparting faith in the therapeutic power of electricity, these despicable charlatans are imposing on the confidence thus created, by humbugging unfortunate invalids who happen to fall into their meshes. Deluded by their promises, and disappointed by their failures, the sick man becomes discouraged, and the popularity of electricity at once drops in the estimation of not only himself, but in that of his friends who have been watching with anxiety the result of the treatment. Every *good* thing has its counterfeit (any thing valueless has not), and swindlers are ever ready to avail themselves of a valuable discovery and prostitute it for selfish purposes. It speaks well for this "hobby" that it can carry so many mountebanks and still survive the laceration of their mercenary spurs.

Cleveland, in treating on Galvanism as a remedial agent, very sensibly remarks:—"In making use of Galvanism as a therapeutic agent, it should not be relied on to the exclusion of every other treatment; neither should a cure of the disease for which it is applied, be anticipated in a miraculously short space of time. Disease in any organ produces a change in the condition of the organ diseased, and time must be allowed for the process of absorption and deposition necessary to bring the organ back to its normal condition. Galvanism, when properly applied, will be found of great advantage in hastening these processes; yet it will not do to apply it with such power as to destroy the organ from which we wish to remove the abnormal accumulations, or even to carry the action of that organ beyond the condition of *health*."

In this connection I would say that *shocks* are not only unnecessary but are often injurious in treating diseases. I have never found it necessary with the beautiful machine I have had constructed for therapeutic purposes, to administer shocks, except in obstinate cases of paralysis of both nerves of motion and sensation, and in these cases the nerves of sensation are not sufficiently active to allow the patient to suffer any pain or discomfort from them. The most delicate and sensitive females who have submitted to my electrical tha-

nipulations, have, from the first operation, considered the influence agreeable rather than otherwise; and many of my patients have continued their use longer than was actually necessary, because the sensations, during the operation, were not only exceedingly agreeable, but the after effects inspiring and invigorating. As regards making electricity in any form a "one-cure-all," Cleveland is eminently right. I meet with very few diseases that can be cured by electricity, galvanism, or electro-magnetism alone. Nervous affections almost invariably inflict an injury upon the vital organs and blood, which is not removed by the correction of the nervous harmony merely. Here recourse must be had to mild medication. In mercurial diseases, it will not answer to merely cleanse the system of the offending mineral by the electrical process, particularly if the mercury has been many years in the system. It is, of course, of paramount importance to remove this corroding *cause*, but, having done this, effects, which have become diseases in themselves, remain, and must be disposed of. Here, too, mild, nutritious, and blood-toning medicines, must be given in connection with electricity.

It is idle prattle to talk of making the lame walk by the use of a single electro-chemical bath. Instances do occur upon which to base such exaggerations, it is true: I have seen many such surprising results attend my own operations. But he who indiscriminately promises such success does positive injury in eight cases out of ten. It is enough to say that a skillfully administered electro-chemical bath will expel mineral poisons. This is a great achievement, and opens the avenues of health to thousands who are suffering from the effects of old-school malpractice. After having cleansed the system of the vile poison, it only remains for the skillful physician to remove the injuries the system has sustained by its former presence.

Let not the temperate tone of the preceding paragraph lead any one to suppose that the blusterers, who startle whole communities with the announcement that they are curing everybody and every thing with electricity, are any better posted regarding its marvelous curative powers than the writer of this; I doubt if any one's experience in its employment can more than parallel my own. I say not this in a spirit of boasting, but only in simple justice to myself, while cautioning the afflicted against exaggerated statements put forth by impostors. For the past eight years I have been a faithful student in electrical therapeutics, and have employed the agent in thousands of cases. A large practice has given me every opportunity to test its effects in

all sorts of chronic diseases. The results, in a majority of them, have been truly wonderful; and those who have witnessed my operations have turned away with the settled conviction, that all a physician needs for permanent success, in every form of disease, is a well-constructed electro-magnetic machine, and a thorough knowledge of its use. One instance made an indelible impression on my mind. A German physician, who had been through the best European schools, and had had much experience in various hospitals, ridiculed the claim I set up for therapeutic electricity, and, under the supposition that he would see something to strengthen his prejudices, took pains to witness some of my operations. The results of his investigations were to him perfectly overwhelming, and after giving some applications himself under my directions, he proposed to procure an electro-magnetic machine, and adopt electropathy as a speciality! I have made both rheumatic and paralytic invalids run and rejoice in the restoration of painful, contracted, stiff, and withered limbs. I have caused the haggard, downcast, cadaverous face of the dyspeptic to light up under the exhilarating effects of currents of electricity sent down the pneumo-gastric nerves to the stomach. I have imparted an elastic step and glow of health to many a lady who had for years before crept about her domicile under the debilitating effects of female weaknesses. I have given the neuralgic sufferer occasion to rejoice in my discoveries in electrical therapeutics. An interesting young lady, a teacher in a popular New England institution of learning, once called upon me with a neuralgic difficulty. She had suffered a thousand deaths in the period of about ten years. From early girlhood, a rain-cloud had never darkened the horizon without aggravating her tortures to such an extent that she often implored her medical attendant to open an artery, and let the horrors of such a life ebb away with the arterial fluid. She had tried every thing old school and new school had recommended, and her faith in all had vanished. The principal of the institution, however, had called on me and investigated the principles of my practice, and under his solicitation she determined to make one more attempt. After the fifth operation, a long, drizzling, spring rain of nearly two weeks duration set in, but her old tortures did not return. She wisely adopted a course of vegetable medication, to render this good work permanent, and a year afterward she wrote that she had been entirely free from neuralgia. I might relate enough wonderful instances of my success in the employment of electricity to fill this volume; I have only given the foregoing instance because of its

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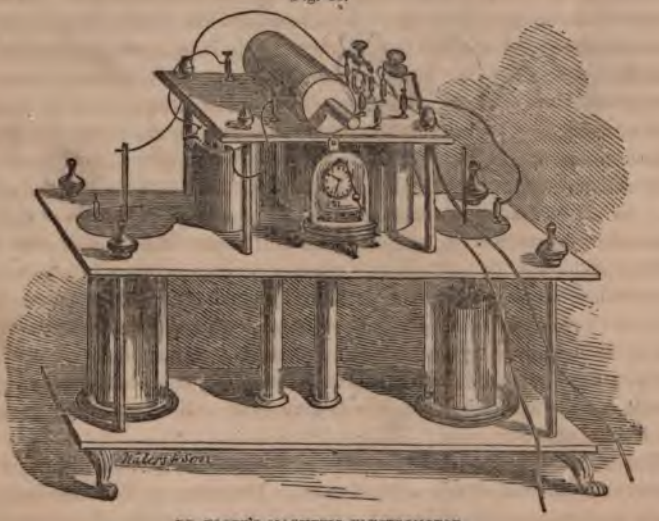
peculiarity. In the practice of a lifetime, a physician would hardly meet with another such sufferer.

From the foregoing paragraph it will be seen that the position I take in only recommending electricity as an *auxiliary* agent in the treatment of disease, is not at all in consequence of questionable success in its employment. Aside from the efforts I have made to keep up with all useful discoveries of other "magnopaths" and "electropaths" of this country and Europe, my own experience has suggested improvements and inventions which I could hardly do without.

Fig. 25.



DR. FOOTE'S MAGNETIC ELECTROMOTOR.

Figure 25 represents my magnetic Electromotor. This was constructed, piece by piece, under my personal supervision; and there is not another one like it in the world, unless some person, without my knowledge, has obtained one constructed after my model. The merit of this instrument consists in its combining in one machine every advantage I could possibly derive from a roomful of all sorts of electrical apparatus. It has different batteries for generating electricity and galvanism, so that I may be able to obtain just what I want for any subject that may be presented. The helix, which, with the aid of its appendages, magnetizes the fluids, gives off five different currents, from which I can select the one best adapted to the physical wants of the

invalid; or, in complicated cases, two or more currents may be employed during one operation, as the case may require. It should be understood that the currents generated by different machines are not alike in their nature or effects. There is no more reason to doubt this fact than there is to doubt that there are various modifications or qualities of air, water, light, heat, etc.: indeed, the discoveries of science put the question at rest. It has been found that machines of different construction give forth varied results when tested on a subject. Electro-platers know that a current generated by what is called the to-and-fro, or alternating machines, has not sufficient polarity for their use, and that a direct current has. Chemical electricity will traverse any metallic conductor, whether made of brass, copper, or silver, while pure magnetism will only pass along iron or steel. Different metals give forth currents of a different nature, when decomposed by the acid of a galvanic battery. Then, too, the nature of the galvanic current becomes changed in its passage through the helix.

It will be seen, then, that my magnetic Electromotor, combining as it does all the best features of the many different machines for generating electricity, galvanism, and electro-magnetism, besides possessing some peculiarities of its own, and also the power to give off any kind of current wanted, is a great triumph of art. Having used it now, for three years, I have found it to possess every quality I herein claim for it, and the fact, that I can effectually influence the invalid with its mild and genial currents, without giving the semblance of a shock, at once shows its superiority over every other instrument used for therapeutic purposes.

The most complete machine, however, capable of generating every variety of current, is but a small part. Electrical appliances of all sorts must accompany it in order to render it useful in all diseases. Instruments for the ear, eye, tongue, nasal passages, urethra, vagina, rectum, &c., &c., are all necessary for the successful application of electricity. Then, too, these instruments must be varied in their construction, so that currents can be either focalized or diffused in making entrance or exit. In my operating rooms, nearly fifty different appliances are employed, many of which are of my own invention. The most valuable of these is my Magnetic-stool, for the treatment of womb difficulties, piles, constipation, liver obstructions, diseases of the male generative organs, &c. Unless mine has been imitated, it is the only one that has ever been constructed. In my extensive practice as an electri[redacted] had found the inconvenience and inefficiency

of all contrivances for treating the procreative organs of both sexes. I set myself at work to supply the desideratum, and the invention of my Magnetic-stool was the result. With this instrument, I can treat diseases of both sexes without subjecting their persons to indelicate exposure, as is necessary with the ordinary appliances; and in its efficiency, it is as much superior to what is commonly used, as the steam-engine is superior to the wind-mill.

Yet, a good, properly constructed electro-magnetic machine, and every necessary appliance, will not produce marvelous results, except in the hands of a good operator. Some physicians of high reputation, cannot distinguish between the positive and negative poles of a machine, and much less explain the difference in the nature of the various currents and the proper one to be applied in a case. They apply it hap-hazard, and, as a consequence, will sometimes be thrown into ecstasies over its beneficial effects, and at others startled with its inefficiency. Such persons regard electricity as an uncertain therapeutic agent, and only employ it after every other expedient has been resorted to in vain. To be a hard student as well as a practitioner; to investigate the *causes* of various phenomena; to labor to know precisely why a certain operation is to be performed in a particular way, and why it must be varied to suit the various "ills" and idiosyncrasies of different patients, is to be a hard worker, and, unfortunately, for a world of invalids, too many who enter the medical profession, do so to escape labor and to secure for themselves social position and influence. After learning how to use electricity, the giving of an application is not as pleasant as sitting down with gold pencil over a sheet of gilt-edged paper and writing a prescription. In the latter instance, the pharmaceutist has the work to do, and he does not have to exercise his perceptions and muscle like an electropathic manipulator. The lazy, straight-jacketed, old fogy disciples of Æsculapius received some pretty hard raps recently, in one of our largest metropolitan journals. In commenting on a controversy which sprang up between old fogydom and medical progress, the editor said:

"We do not, however, hear of any one on the side of the public, who, it strikes us, are the real sufferers in the matter. The journals have aired the theories of the Sangrados in articles of due weight and properly mysterious technicality. We speak a few plain words for the patients of the contending schools—for it is a war of schools, and nothing more. It is the bitter quarrel between the old-school fashionable practitioner who adheres to the traditions of the last century,

and the man of science who brings to his aid the newest discoveries. It is the theory of your fashionable physician to keep his delicate patients in such a condition that the yearly bill will be plethoric. He attempts no new-fangled experiments; he does not rudely tell Madame that nothing really ails her, except laziness, but gives her a good deal of the latest gossip and a little harmless medicament. He is a nice doctor—affable to the ladies, and not unpopular with the men, and so kind to the children. He lives in a good quarter of the city, has a fine equipage, and altogether makes a good thing of it. He is an amiable man, takes things as they are, and when his patients die he lets them down easy. His funeral manner is superb, and nothing can be finer than the way in which he carries his work home. But sometimes the even tenor of the good man's life is disturbed by a horrid fiend in the shape of a new-light doctor—a fellow that has kept his eyes open; one who walks the hospitals, is constant at cliniques, a hard reader, and thoroughly informed upon all the latest experiments, operations, and discoveries of European *savans*. The fashionable doctor is afraid of the new light. He commences by calling him young—which is a terrible blow, but one which is easily got over. Then he is a specialist. The old ladies—like the apple woman who was called a parallelogram—don't exactly know what a specialist is, but conclude it must be something awful." * * * * * * *

"Woe to the new light if he loses one of his patients. No language is strong enough to express the rage of the family doctor when he loses the chance of finishing up every member of it. * * * The scalpel kills more than the sword; the Latin prescription is often the death-warrant without the chance of a reprieve." * * *

"The medical faculty seem for the most part to be groping and guessing in the dark; a fact which, considering the difficult nature of their duties, would not reflect so much discredit upon them but for the obstinacy with which they persevere in shutting out such lights as are to be gleaned from the scientific labors of those who refuse to be guided by the formula of the old-school practitioners."

It is not often that a secular journal gives so much truth in so few words, and it seems especially hazardous for a newspaper to thus pitch into the Allopathic doctors. Verily new school must be becoming popular. New-school doctors have generally imagined themselves rowing against the popular tide; but when an influential journal publishes such sentiments as I have quoted, it looks as if we had outrode the storm, while allopaths are in danger of being "swamped."

Albeit, physicians should not be censured because they do not all become electrical operators. I have shown the necessity for having a perfect instrument for generating therapeutic electricity, and the great importance of knowing just how, when, and where to employ the proper currents; also the necessity of having ingenious appliances. But still one more qualification is essential to make a man an *eminently* successful operator. It is not something he can acquire by life-long study; it is not a secret which a mechanical electrician can impart, with all his ingenuity; it is not a "kink" he can "get the hang of" by experience in applying the subtle agent. It is a God-given gift. It is the possession at all times of a good supply of animal magnetism. To be a first-rate operator, a physician must be a *battery in himself*. In the treatment of many diseases, the current sent out of an instrument must be modified by individual electricity, or, as it is more commonly termed, "animal magnetism." There is great difference in individuals in the possession of this. While some are very positively magnetized, others are, naturally, extremely negative, and cannot impart to another the first particle of this invigorating influence. Doubtless most of my readers have heard of the restoration of the sick by laying on of hands. If not, I could relate many singular instances which have occurred in my own practice. One of the most remarkable will suffice for an example. While in Troy, N. Y., on a professional visit, a gentleman hobbled up-stairs to my rooms to consult me regarding rheumatism in one of his knee-joints, which had been very painful, and which had made his limb stiff for over a year. It appeared very difficult for him to walk, and the invalid exhibited in his countenance that contortion of features so peculiar to one suffering pain, that no one in health could possibly imitate. Then, too, the knee was red and swollen. I gave it a very careful examination, following up each muscle that could be reached, with my fingers, for several inches, to see if I could discover any contraction or rigidity. I then examined his blood, stated my opinion, and my terms for treatment. He expressed himself favorably impressed with the interview, and promised to call in the afternoon and decide whether or not he would place himself under my care. He had hardly been out of my rooms ten minutes, when he returned with a look of indescribable surprise, and exclaimed—"What have you done to my knee, Doctor?" "Why do you ask?" I interrogated. His reply considerably astonished me, for he said he had both descended and ascended the stairs without pain, and at the same time gesticulated with the limb, moving

it backward and forward to show its mobility. I, of course, saw at once what my magnetism had done for it while manipulating his muscles, and explained the philosophy of the phenomenon. I have often produced similar effects by manipulation, but, I confess, this instance was most remarkable, because the act was unattended by any exercise of my will power. M. Nelaton, an eminent surgeon of the Clinique Hospital, Paris, is said to resort to the practice of manipulations for sprains, both recent and of long standing, and instances are related of his great success. Besides my own extraordinary experience and that of M. Nelaton's, I may add that I have seen Dr. Benton, the celebrated mesmeric operator, do many things of a remarkable character by the employment of animal magnetism. In brief, I have heard of many astonishing results from the "laying on of hands," by non-professional as well as professional men.

The annexed cut, figure 26, will serve to illustrate this proposition. We will suppose the dots to represent the animal magnetic currents. The hand held above the head illustrates the magnetic power of a person who is highly electrical; the one above the right shoulder, that of a person considerably so; while the one over the left shoulder fairly illustrates one nearly destitute of animal magnétism or individual electricity. Not that any one is entirely destitute, but many do not possess a sufficient supply to exert any perceptible influence over any one. To be a very successful magnopath or electropath, one must possess the highest amount of positive individual electricity, as represented by the hand above the head in the picture.

Fig. 26.

Now, while I am well aware of the fallibility of this mode of treating disease when adopted as a speciality by persons possessing the greatest amount of magnetism, and while I know that cures apparently effected by this power or agency alone, are seldom permanent

ones, but reliefs of temporary duration, the truth cannot be gainsayed that the possession of this magnetic power is of vital importance to one who desires to be a successful electrical operator. I have found, in giving instructions in therapeutic electricity to physicians, that they differed greatly in the power of employing it efficiently, even when they seemed to be equally proficient in the theory and practice. In other words, while they perfectly understood the *modus operandi* of making the manipulations, and the currents to be employed, the results of their experiments were widely different. This want of uniformity in their success I have attributed to the difference in the magnetic powers of different individuals, and how wisely, I leave it for the reader to decide, after having perused what I have herein written, and what will be further found in Part II. of this book.

In all disorders involving the nervous system, electricity, applied properly by a good operator, is an excellent substitute for popular anodynes. It has been the general custom of the medical profession, to resort to stupefying narcotics to allay nervous irritability, which unquestionably produce temporary relief, but as certainly, ultimate injury. I may truly say that I have always found electricity to be eminently a nerve medicine, yielding timely relief and no unwelcome reactory results.

For my patients residing at a distance, and who cannot avail themselves of treatment at my office, I prepare what I term *electrical medication*. I do not mean to shock the good sense of my readers by saying that an electrical property can be imparted to medicines, of such a nature that a metallic wire can conduct it off as from a Galvanic battery or a Leyden jar; but I do affirm, that I can prepare medicines in such a way that they will possess *latent* electrical properties which are at once rendered active by coming in contact with the gastric fluids of the stomach. I can by my process make medicines which will produce nervous force and regulate its action. Such medicines are eminently recuperative, when prepared with reference to the requirements of each case, and while they are active enough for the successful treatment of all curable chronic diseases, and of hundreds supposed to be incurable, they possess no property which unduly excites or debilitates the patient. Electrical medication assimilates most charmingly with the nervous fluids; regulates their circulation; assuages pain; and invigorates the whole nervous system from the brain, and spine through all the nervous ramifications, while at the same time the individual properties of the ingredients are retained

and work thoroughly but mildly in the blood, casting out all impurities and regulating the action of the various vital organs. In many cases, electrical medication is far more beneficial than applications of electricity, and in all cases it is more efficacious than the manipulations of ordinary operators. With this nutritious, blood-toning, nerve-regulating, and vitalizing system of medication, I have annually treated, successfully, hundreds of patients laboring under difficult chronic diseases, whose faces I have never seen. My files contain letters from every State and Territory in the United States, and also from nearly every province of British and Spanish America: and I will further say that if I could, without violating confidence, publish their contents, my readers would almost conclude that the days of miracles are not past. Occasionally, a case presents itself, which absolutely requires the application of the element generated by mechanical and chemical apparatus. Such invalids, to obtain the required benefit, must present themselves in person for the necessary electrical manipulations. After what I have said, it is hardly necessary to warn the reader against the impositions of inexperienced and unskillful electricians.

In injuries resulting from accident, electricity skillfullly applied, often cures without the aid of other remedies. The "Christian Age" relates an interesting case of a French officer, who, while making a reconnoissance near Sebastopol, during the hostilities between Russia and the allied powers of England, France, and Turkey, was knocked down by the wind of a cannon-ball, the shock of which was so severe as to cause paralysis of his tongue, so that he could neither move it nor speak. Obtaining leave of absence, he returned to Marseilles and placed himself under electrical treatment. After a few applications he could move his tongue with more facility, and, at length, after an unusually powerful shock, his speech was fully restored to him. I might give several instances of nearly equal interest, which have occurred in my own practice, exhibiting the curative power of electricity in difficulties arising from accidental causes, but this one will suffice. With a few brief quotations from celebrated writers on therapeutic electricity, who testify to its value as an adjunctive remedial agent, I will conclude this essay:

"Electricity," says Matteucci, "is the only irritant which can excite, at one time, sensation, and, at another, contraction, according to the direction in which it traverses a nerve."

"Says Golding Bird, "It is the only direct emmenagogue which the experience of our profession has furnished. I do not think I

have ever known it fail to excite menstruation, where the uterus was capable of performing this office."

Dr. Philips remarks that in cases "where there is a failure in the secreting power of the liver, or a defective action of the gall tubes, I have repeatedly seen from galvanism, the same effect on the biliary system which arises from calomel; a copious bilious discharge from the bowels, coming on a few hours after the employment of galvanism."

"The beneficial effects of galvanism," says Sturgeon, "in asthma and bilious complaints, have several times come under my notice."

"Mr. Cole, house-surgeon to the Worcester Infirmary," according to the Dublin Medical Journal, "informed Dr. Philips that no other means employed there have been equally efficacious in relieving asthma, as galvanism."

The same paper observes that "Dr. Marcus reports several instances of the successful application of galvanism in the great hospital of Bamberg. One was a case of paralysis of the arm, in which a complete cure was effected. Another was one of violent headache after a remittent fever, which could not be subdued by any medical treatment."

"The same reason," (says Smee) "for which electricity is valuable in amenorrhœa, might lead us to expect that it would tend to rectify the state of barrenness in the female; for, by causing it to act directly upon the uterus, it is calculated to increase the supply of blood, and thus remedy the deficit." I might here remark that I have been successful in curing several cases of barrenness, of many years standing, by the application of electricity, aided by other remedies.

"One of the most important and curious of the physiological properties of the galvanic influence," says M. Donavan, "is its power over the peristaltic motion of the intestinal canal, and the consequent evacuation of the fæces. The power over the peristaltic motion, denied by Volta, was, I believe, first observed by Grapengiesser; but the resulting effects were discovered by M. Le Roy d'Eliolle."

"Costiveness in the bowels," says Sturgeon, "however obstinately it may resist the usual remedies, very soon yields to the galvanic treatment; and by a similar process, constipations generally may readily be vanquished."

"In disease of the eye," says Donavan, "the application of galvanism has been of the greatest service; there are many cases of cure on record."

The experience of many others might be added, equally commendatory of the therapeutic power of electricity; but as my object in making these quotations is merely to show what many eminent physicians, *of the old school*, across the Atlantic. think of it. these are sufficient.

WATER.

In all ages of the world, and in all nations, civilized and barbarous, water has ever been held in high estimation as a remedial agent. Hippocrates, Pindar, Thales, Virgil, Pliny, Galen, Charlemagne, Hahnemann, Priesnitz, Wesley, and all distinguished philosophers, physicians and theologians, ancient and modern, have extolled its virtues. It was Priesnitz who made it a "one-cure-all." He was the first to open a "Water Cure." Priesnitz was great, but Priesnitz was an *enthusiast*. Still his enthusiasm was the result of extraordinary success, compared with the medical exploits of the Allopathic profession with which his rural abode was surrounded. His Hydropathy cured thousands—hundreds managed to survive the barbarities of Allopathy. He killed a few—Allopathy slaughtered daily more than Priesnitz healed. The zeal of a military chieftain heightens with the number he slays; that of a medical practitioner with the number he keeps alive. Is it strange that Priesnitz was an enthusiast?

Yet, the establishment of the school called Hydropathy was an error. Water is *not* an infallible remedy, and less so in the hands of the disciples of Priesnitz than in those of the great founder himself. The latter was naturally gifted with peculiar skill in the application of water, which characteristic exhibited itself in the juvenility of the son of the Graefenberg farmer. But a medical education would have materially modified his "one-ideaism." Priesnitz did not possess that. Had he explored the green fields and forests of nature, as well as laved in her limpid waters, he would have been less exclusive in his choice of remedies, and his practice and that of his imitators, would have been more uniformly successful. Many hydropathic physicians are beginning to see what their prototype, in his blind enthusiasm, failed to perceive, and already mild medication and therapeutic electricity are being introduced in water-cure establishments to some extent.

While I do not deny the contracting and relaxing influences of water, according to its temperature, and the beneficial effects of each

of these in appropriate cases, I maintain that the real philosophy of "water-cure" is based on electrical principles. Water possesses a great amount of electricity. *If the blood of an individual contains its natural supply of iron, it attracts the electricity from the water, thereby rendering the body of the invalid in an electrically positive condition compared with the atmosphere. As soon, then, as the application has been made, an active radiation of electricity from the system takes place which accelerates the escape of effete matter, and renders the pores, skin and other organs more active.* It is therefore diametrically wrong to resort to water in the treatment of invalids with thin blood. Did hydropathists, generally, understand this philosophy, "water-cure" would not prove so often *water-kill*. My theory is indirectly supported by that of Priesnitz. According to Claridge, he held:

1st. "That by the hydropathic treatment, the bad juices are brought to and discharged by, the skin."

2d. "That a new circulation is given to the diseased or inactive organs, and better juices infused into them."

3d. "That all the functions of the body are brought into a normal state, not by operating upon any particular function, but upon the whole."

Now when we consider that whatever moves has a motive power, and that "better juices" cannot enter, or "bad juices" depart from the system, without some active agent to move them, my theory is not only rendered plausible, but probable. Thus, when the electricity of the water enters the body, water must necessarily go with it, because its relations are such with that element that it forms a part of it; and in this way better juices are infused. When the application of water ceases, the body being electrified by that fluid and rendered strongly positive, compared with the surrounding atmosphere, active electrical radiation ensues, carrying with it the "bad juices" which nature, in its instinctive wisdom, is ever ready to dispose of when opportunity is presented.

The great amount of electricity possessed by water has been demonstrated by Prof. Faraday, and is now generally admitted by chemists. His experiments show that the quantity of electricity set free by the decomposition of ten drops of water is actually greater than exists in the most vivid flash of lightning.

In bloodless patients, tepid and hot baths are injurious, because the blood does not possess the attractive property or iron to draw in

the electricity of the water, while its temperature relaxes the tissues and leaves the system open to the ingress and progress of disease. It is safe to say that a majority of invalids suffering with debility, nervousness, consumption and predisposition to apoplexy, should not receive full hydropathic treatment. In many cases of these descriptions it should not be administered at all, and in most only sparingly and with great discrimination.

Satisfied of the virtues of water as an *auxiliary* agent, I have resorted to it extensively in my practice, and, by exercising the most careful discrimination, with uniform success. Simple and abundant as this remedy is, it is something which cannot be trifled with. Many a good man and woman has unwittingly committed suicide with water. Hydropathy is not as popular to-day as it was ten years ago, on this account. It is a great pity that mankind is disposed to abuse and misuse almost every good thing.

"The universal application of water," says Prof Cook, "may be safely called in question. The assertion that it is equally efficacious in any and every form of disease is so at variance with past experience in single remedies, that it has induced the greater portion of practitioners to discard it at once. The success of hydropaths is undoubtedly great; but it is well known that a prominent feature in their institutions is a rigid adherence to hygiene. Wholesome diet, fresh air, exercise, mental relaxation, etc., which, of themselves, have a very great effect in restoring the patient, are more strictly enjoined by them than by any other school; and as most practitioners are too inattentive to these matters, the hydropaths have the advantage on this point. Besides, without any disparagement to water-cures, it must be remembered that those cases in which water fails are not reported, any more than the failures of other schools. Many cases have occurred under my own observation, in which hydropathy, as applied in one of the best establishments in this State, had failed, but which subsequently yielded, and were cured by botanical remedies. This goes strongly to convince me that it is not universally applicable."

"In union there is strength," is a political proverb of universal application. The Botanics, Hydropaths and Electropaths should coalesce, under the name of the Utilitarian practice. Such a coalition could not fail to defeat disease in every aspect which it presents itself. By a discriminate application of one or all, according to the indications of a case, many valuable lives might be daily saved which

are now lost in consequence of bigoted medical "one-ideaism." I have assiduously pursued all these systems in my practice, and would rather abandon my profession than to discontinue any one of them, although I must candidly confess that I would rather give up Hydropathy than vegetable medication and therapeutic electricity, were I obliged to remove one plank from my medical platform. If forced to drop one, the choice would rest between water and electricity, and I am thoroughly convinced that the latter can be made far more conducive to the requirements of the invalid than the former. My attention is wholly devoted to the treatment of chronic diseases, and in such my experience demonstrates that electricity can be made more available. In the treatment of acute disease, particularly fevers, water may be, and, without doubt is, preferable.

MEDICATED INHALATION.

Having found this system of treating pulmonary diseases a valuable *assistant* in my practice, I should not close this chapter on remedies without, at least, an allusion to it. I have heard much said of curing lung and bronchial diseases by medicated inhalation. Allow me to make the bold assertion that a disease of the pulmonary organs was never *radically cured* by medicated inhalation alone.

In support of this view, I have only to invite the attention of the reader to a consideration of the causes which lead to pulmonary and bronchial complaints. It is well known that an abscess under the arm, tubercles on the skin, and ulcers on the limbs, denote an impure condition of the blood, from which they all arise. Is it not, then, self-evident that any of these difficulties located in the delicate membranes of the respiratory organs give evidence of and spring from the same cause? Is there an Æsculapian wiseacre who can command enough sophism to seemingly disprove this?

The blood is not impartial in the distribution of its impurities, but invariably sends them to that part of the system which has the least power to resist them. Hence, persons having a scrofulous or canker humor in the blood, and at the same time a predisposition to weak lungs, the worst form of ulcerous or tuberculous consumption is in time developed. The question then arises, will medicated inhalation cleanse the blood of its impurities? If not, how can a radical cure be effected?

There are other forms of consumption, such as those induced by amenorrhœa, thin blood, solidification of the lungs, etc. The first,

of course, is peculiar only to females. Will inhalation remove the cause from which springs the effect? The second arises from general debility, and a diseased action of the liver and kidneys. Will inhalation arouse the lethargic functions of the system, and restore to the blood its strength and nutrition? The third either grows out of one of the different forms of consumption first considered, or else from a weakness of the nerve or electric force, which expands and contracts the air vesicles and moves the diaphragm. The medicated vapors inhaled must therefore possess miraculous powers in the restoration of the tone of the vascular and nervous system, or a cure cannot be effected.

Consumptive invalids, who resort to inhalation alone for relief, as well as physicians who practice on that system, lose sight of one important fact—i. e., *consumption of the lungs and bronchitis are only the* EFFECTS *of other derangements of the system.*

It is unnecessary to occupy space with an argument to show how certainly a convalescent consumptive must relapse when *effects* are treated and *causes* left undisturbed. If this essay should happen to meet the eye of any one who *thinks* he has been cured of consumption or bronchitis by inhalation, let me assure him that either his physician was mistaken in the diagnosis of his disease, or his old complaint still lurks in his system, ready at any favorable time, when exposure occurs, to return with redoubled virulence.

I prescribe inhaling remedies in pulmonary and bronchial difficulties, for the same reason I do washes and ointments in the management of cutaneous diseases. Local applications are often necessary, while the slow but sure work of purification is going on internally; but to rely on them exclusively, is presumptuous, to say the least. I often find it necessary to summon Electropathy to my aid in battling the hydra-headed disease—consumption. I *always* prescribe invigorating and purifying blood medicines in addition to medicated inhalation, and should as soon think of dipping out the Croton river without cutting off its tributaries, as to attempt to cure consumption without them.

The *successful* physician does not ride "one hobby." One-ideaism in medical practice is perfectly incompatible with uniform success. Then, too, different constitutions require different remedies. A "one-cure-all" is an impossibility. One hat will not fit every body's head—one coat every body's back, nor one circumscribed medical system every body's disease. The medical profession generally must

mount a more comprehensive platform. Let us have a Utilitarian School, in which all approved systems shall be united, and in which all remedial agents shall be weighed in the scale of utility, and admitted or rejected, according to their merits or demerits. The world is full of "pathies," not one of which is sufficient in itself to meet the exigencies of diseased mankind.

CHAPTER IV.

Doctors "Jacks at all Trades."

THERE can be no greater folly in a physician than to attempt, within the brief period of his mundane existence, to acquire skill in the treatment of *all* diseases to which mankind is subject. A large majority of the members of the medical profession are like the versatile mechanic, who is said to be a "jack at all trades and good in none." Any man who tasks his ingenuity by trying to unite in himself the house-carpenter, the joiner, the cabinet-maker, the carver, the pump-maker, the ship-carpenter and chair-maker, may generally be set down as a man of extensive pretensions and meagre executive abilities. The professional man who assumes to combine in himself the politician, the pedagogue, the editor, the pettifogger, the domine, etc., may possibly exhibit some little tact in all, but he will as surely excel in none. So with the physician who would be a skillful surgeon, an accomplished accoucheur and a successful doctor, in diseases both acute and chronic; he divides his attention to such a degree as to render him unskillful in the performance of the duties of either.

There ought at least to be *three* distinct branches in the medical profession. The surgeon, the physician in acute and the physician in chronic diseases. These are three different vocations, as dissimilar as house building, cabinet making and ship building. Surely surgery is totally unlike prescribing for the sick, and every reader must perceive the striking difference between an acute and a chronic disease. In an electrical point of view the two latter are perfect antipodes, acute diseases arising from a *positive*, and chronic diseases from a *negative*, condition of the system. Thus acute diseases are characterized by external heat, while chronic diseases are almost invariably attended with external coldness. To be successful, the treatment of each must be perfectly unlike, because they arise from entirely dissimilar conditions of the system.

When an acute disease takes the chronic form it is the result of *reaction*, not of *continuation*, as many suppose. I am aware that it

derives its name from the latter, chronic disease signifying, according to the lexicographer, one which is inveterate or of long duration, in distinction from an acute disease, which speedily terminates. But what I mean to say is, that a chronic disease following an acute attack is not a continuation of the latter, but an opposite disease, resulting from a reaction in the system. Frequently chronic diseases are preceded by no acute attack, the condition of the system favoring the development arising from hereditary predisposition, from exposures to atmospheric changes or to dampness, acting upon diseased blood or nervous disturbances.

Now, why should the physician be a jack at all trades any more than the mechanic, the lawyer, the school-teacher or merchant. Look at the various departments in mercantile pursuits. The jeweler does not traffic in dry goods, nor the dry goods merchant in hardware, nor the grocer in watches, nor the furniture dealer in tin-ware, nor the crockery merchant in sugar. Occasionally these branches are united in sparsely settled villages, and in such localities a physician might be excused for playing the surgeon and doctor in acute diseases, but a person residing in a small place suffering with a chronic complaint can avail himself of a city physician who devotes his entire attention to such disorders, and the village doctor should not tamper with this class of diseases if he desires to be successful and to do injury to no one.

In large towns there is not a shadow of an excuse for a physician to practice all branches of his profession, to the manifest detriment of a large portion of his patrons in most cases, and the injury of all in many. Every physician knows or ought to know in what class of diseases he is most successful and in the treatment of which his mental capacities and acquirements best qualify him, and to this particular class he should devote his undivided attention, and not, like a patent medicine, proclaim himself an infallible cure for every disease.

With such a classification as I propose, the man who wants a limb amputated would go to the surgeon whose daily experience qualifies him to do his work skillfully; one with a fever would send for a doctor whose experience is daily ripened in his exclusive attendance upon the calls of sufferers with acute diseases; one with consumption, or other lingering disease, would call upon a physician whose attention is solely given to the treatment of chronic disorders, in the constant management of which he is daily acquiring additional skil.

In trying to cover the whole ground, a physician cannot possibly acquire superior skill before his locks are hoary and his energies paralyzed with age, and then, to use a common expression, "he is too lazy" to put to active use the acquirements which long years of study and experience have bestowed on him. How many, too, the old man has killed in preparing himself for skill and eminence, which he cannot bequeath to any younger relative or friend.

What nonsense then for men to attempt to grasp knowledge and skill in all branches of the healing art, blundering along through years of unproficiency, dodging from the operating chair of a surgeon to the sick bed of a feverish patient, and from the accouchment bed to an examination of, and prescription for, a chronic disease of the lungs, liver, kidneys, stomach or something else.

So far as I am concerned, I wish it distinctly understood that I have nothing to do with surgery or acute diseases, my whole study and practice being solely devoted to complaints of a chronic nature. In these I claim to be proficient, and stand ready to compare the results of my practice with that of any *ten* physicians, put together, who essay to treat all classes of disease.

CHAPTER V.

The Curability of Chronic Diseases and their Successful Treatment.

In this chapter the author will briefly advert to those diseases which commonly take on the chronic form, and to which his professional labors have been exclusively devoted. Many of the diseases hereinafter mentioned have been pronounced incurable by the medical faculty, whose "jack at all trade" propensities have prevented them from acquiring sufficient knowledge of their pathology, to treat them with success.

It is not expected that one man can know every thing, and consequently it is not surprising that the physician who may be successful in fever and other diseases of an acute nature, may be certain death to every consumptive or other invalid with a chronic disease who may apply to him for aid. A physician is criminally culpable who takes in charge a case which his past experience proves he cannot cure, or one which he pronounces incurable. An invalid should always remember that when a physician says a disease is incurable, he bases the assertion on his own experience. Therefore, if a doctor tells any one of my readers that he or she has a complaint which cannot be cured—only "patched up"—shun him as you would a dose of mercury, and apply to some honest and skillful physician who thinks he can cure you.

CONSUMPTION

Of the Lungs has been put down by a majority of physicians as an incurable disease. So any one might, with considerable propriety, suppose from the published statistics, which exhibit the astounding fact that one-fourth of all the deaths daily occurring in North America, France and England, when no wide-spread epidemic prevails, are produced by diseases of the lungs. But I boldly affirm that this extensive mortality among consumptives is greatly owing to the ignorance of physicians, particularly those of the old school, in the treatment of pulmonary complaints, which are vaguely understood by far the largest share of the medical profession on both continents.

Now, without wasting time and space with an investigation of old fogy theories, as held by a majority of medical writers, I assert that tubercles in the lungs are an *inverted eruption*, or in other words, consist in the presence of humors in the delicate membrane lining the air vesicles, instead of the external skin. This view is sustained by the experience of hundreds who have been my patients with tuberculous difficulties, and whose pulmonary attacks dated with the disappearance of humors or ulcers from the cuticle. During the past year, I had one case whose lung trouble commenced immediately after a suppurating ulcer on the knee had been healed up; two others who were taken with consumptive symptoms as soon as salt rheum, with which they had been for years troubled, struck in; five more, whose lungs became affected immediately on the disappearance of a humor on the chest. In all these, their family physicians had pronounced their diseases tuberculous consumption. Before effecting a cure in two of these cases, the cutaneous difficulty reappeared, and as soon as it did so, the lungs were instantly relieved

Many persons, it is true, have tuberculous lungs who have never had a blotch or pimple on the skin. In these cases the humors in the blood are predisposed to attack the mucous membrane rather than the cuticle. Many invalids think their blood pure, because they have ever been free from any external signs of humor. Such persons, if affected with blood impurities, have the most to fear from tubercles and ulcers in the lungs, because of the persistency of the blood to deposit its impurities on the internal linings.

It is held by many that the cause of this disease is an abortive or perverted nutrition tubercle being produced instead of true tissue, and that the faulty nutrition, which results in tubercle, is caused by a deficiency of oily substances! On the strength of this presumption, Dr. Hughes Bennett, some years ago, introduced cod liver oil as a remedy. If there is nothing better to sustain the correctness of this theory than the results of the remedy employed, no argument is required to exhibit its fallacy. Cod liver oil has been extensively resorted to by the medical profession in this country and Europe for the past ten or fifteen years, and with what success the public is too well aware to make statistics necessary. That oleaginous food and remedies are good, provided the patient is not dyspeptic as well as consumptive, there can be no doubt, because they furnish nutriment to the failing adipose tissue. But that cod liver oil leads all other oleaginous remedies, facts thus far fail to demonstrate.

A good story is related by the Lavaca Herald of a German residing in York City, Penn., who recently, while suffering with a pulmonary attack, sent for one of the village doctors. In a short time the doctor called on him, prescribed two bottles of cod-liver oil, and receiving his fee of $8, was told by the German, who disliked the size of the bill, that he need not come again. The German, who, by the by, had not heard the doctor's prescription very well, supposed he could get the oil and treat himself. The doctor saw no more of his patient for some time; but one day, riding past the residence of the German, he was pleased to see him out in the garden digging lustily. The case seemed such a proof of the virtues of cod liver that he stopped to make more particular inquiries about it. "You seem to be getting well," said he to the German. "Yaw, I ish vell." "You took as much oil as I told you," queried the doctor. "Oh, yah, I have used more as four gallons of the dog-liver oil." "The what?" queried the astonished doctor. "De dog-liver oil dat you said I shall take. I have killed most every fat little dog I could catch, and the dog liver oil has cured me. It is a great medicine, dat dog-liver oil!" The doctor had nothing to say, but rode quickly away, and noted in his memorandum book that consumption might be as readily cured with dog-liver as cod-liver oil. He might also have added in his diary that lamp oil is as good as cod liver oil. While in New Bedford, (from which port a great number of whaling vessels are annually fitted out) some years ago, I was informed by some of the captains (they are all captains there!) that immense quantities of pure sperm oil were annually supplied to druggists throughout the United States for the cod liver oil trade!

Without resorting to any obnoxious oils like those just mentioned, any consumptive patient can obtain all the oleaginous matter necessary to supply the waste of his system, by eating those articles of wholesome food like roast and boiled beef, and boiled mutton, while his medication should be such as to deprive his blood of its impurities.

Dyspepsia is a very common companion of diseased lungs, and in such cases cod liver oil, or even fat meats, are loathsome to the stomach. Dr. Pereira remarks that "fixed oil or fat is more difficult of digestion and more obnoxious to the stomach than any other alimentary principle." "Indeed," adds he, "in some more or less obvious or concealed form, I believe it will be found the offending ingredient in nine-tenths of the dishes which disturb weak stomachs."

Here, then, cod liver oil not only ceases to be a remedy, but becomes an injurious medicine. What are cod liver oil doctors going to do in such an extremity?

Two-thirds of the consumptives who apply to me for relief have a complication of diseases, including dyspepsia; still, I cure them, and, too, after they have been pretty nearly greased to death by other doctors. Do you ask how I do it? I reply, by cleansing the blood, meanwhile resorting to such *local* remedies as the nature of cases demand, and impressing on patients the necessity of air and exercise.

Fresh air is an indispensable aid in curing consumption. "It is wonderful," remarks Dr. Hall, "how afraid consumptive people are of fresh air, the very thing that would cure them, the only obstacle to a cure being that they do not get enough of it; and yet what infinite pains they take to avoid breathing it, especially if it is cold, when it is known that the colder the air is the purer it must be; yet if people cannot get to a hot climate, they will make an artificial one, and imprison themselves for a whole winter in a warm room, with a temperature not varying ten degrees in six months; all such people die, and yet we follow in their footsteps. If I were seriously ill of consumption, I would live out of doors day and night, except it was raining or mid-winter, then I would sleep in an unplastered log-house."

It is quite common for the faculty to recommend consumptive invalids to go South, after they have made some good round fees out of them! Probably this is because they want to get them off their list of patients. They get tired of hearing them say—"I'm no better, doctor." Cold air is just as good for consumptives as warm, provided it is *dry*. This is the important consideration. There is almost invariably an excess of mucus in lung diseases, which causes profuse expectoration. A dry and negative atmosphere excites active electrical radiation from the system, which carries off the internal moisture, rendering the mucous membrane less relaxed and the mucous secretions less copious. I would sooner go to Maine than to Florida if I had tuberculous lungs, although I would advise patients to go where they please, only taking care to avoid damp localities.

Change of scene and climate is good for consumption, but the South is no better than many northern climates. Some parts of Wisconsin are said to have a superior climate for lung diseases. I have been told that horses with heaves soon recover when driven to the central part of that state. The theory that tropical climates

favor the recovery of pulmonary invalids, is nearly exploded. The soil of Key West is enriched with the bones of deceased consumptives.

Even when tubercles in the lungs have so far progressed as to induce profuse bleeding, with proper treatment, the patient may generally be restored. Men often survive the severest accidents to the lungs, and live to a good old age. Who has not heard of the hale old Indian chief, O'Brian Skadogh, who received a bayonet wound in the right lung during the revolutionary war, while fighting under General Lafayette? At the present writing he is a strong, erect and lofty man of 104 years! General Shields, it will be remembered, received a severe wound in one of his lungs in the Mexican war, and entirely recovered If such lacerations can be survived when nature is attacked without warning, there is certainly every chance to cure bleeding lungs, gradually induced by disease, when nature is watching the affected parts and assisting every good remedy employed for mending a breach.

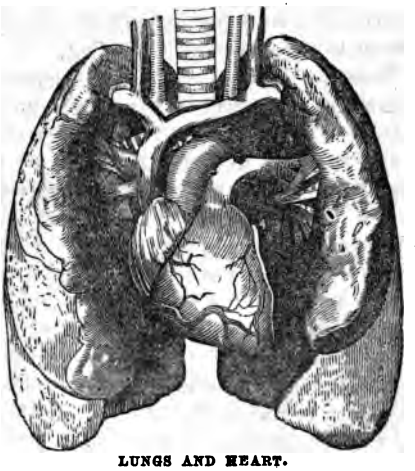
It is not a little curious that the pulmonary artery and vein, when approached by tubercles, contract and sometimes fill up with a fibrous substance, so as to prevent or stop hemorrhage. But when the bayonet, the sword or the bullet suddenly pierces any part of the lungs, nature for the moment is overpowered, and it is almost surprising how she ever recovers herself in season to heal the wounded part. When, therefore, nature exhibits such miraculous power to save lacerated lungs, let not the consumptive despond because, perchance, he raises blood. My success in treating pulmonary hemorrhage, produced either by tubercle or suppressed menstruation, has established the curableness of this disease beyond a doubt.

The entire destruction of one lung by tubercles or ulceration need not excite serious apprehension if the invalid is so situated as to be able to avail himself of superior medical skill. Persons often live to a good old age with only one lung. I have observed in cases of this kind which I have treated, that, after the progress of the disease has been stopped and the tubercles of the remaining lung removed, the latter gradually expands and sometimes almost fills the cavity created by the one which has decayed or dried up. I have now in my mind one case, in particular, illustrative of this remark; a lady, whose case was given up as hopeless by a score or more of physicians, but who has been kindly spared to her husband and children through the instrumentality of my treatment. In her case

the left lung had been entirely consumed, and the destructive disease had made considerable inroad on her right lung. The last examination which I had the pleasure of making showed that the right lung had so expanded as to fill nearly one half the cavity occasioned by the destruction of the left. The reason of this is obvious. The right lung having to perform the same amount of labor intended for two, the air vesicles by degrees enlarged, and with their expansion the lobes extended their increased dimensions into the vacant chamber of the left chest.

Accounts are given in the records of some of the French hospitals, of old people who have died of other than pulmonary diseases, and whose chests, on being opened, exhibited the fact that they had lived many years with only one lung. Healed cavities have also been found in the lungs of such subjects, showing that either nature or the physician had cured them of consumption.

Fig. 27.



LUNGS AND HEART.

The right lung having three lobes, while the left has only two, as exhibited in Fig. 27, renders recovery more probable in cases having consumption in the left lung, although I have cured cases in which the right was nearly or quite destroyed. But the patient who loses the latter is decidedly in a more precarious condition, and the prospects of a cure are less flattering, because the blood is insufficiently electrified by the smaller quantity of air received by the left lung.

Cheerfulness and freedom from mental excitement are essential to the recovery of a consumptive patient. This fact becomes apparent when the philosophy of respiration is explained. It is held by all medical writers whose books I have read, that respiration is wholly produced by the upward and downward motion of the diaphragm, which divides the stomach from the lungs. This is only true in part. Besides the movements of the diaphragm, I am convinced by experi-

ments, that the air vesicles permeated as they are by minute nerves, have a contractive and expansive power in themselves, so that when the diaphragm is in any way disabled or prevented from performing its functions freely, the lungs can in a measure supply themselves with air. The unprofessional reader must understand that the lungs are not expanded by the air entering into them. The diaphragm falls and the air vesicles are opened by the same electric force which is employed by the brain in producing the pulsations of the heart. A vacuum created and the air rushes in—this is the act of inhaling. The diaphragm contracted and drawn up, and the vesicles closed by the electric force acting on the nerves ramifying through these organs, the air is expelled—this is exhaling.

Were the human system wholly dependent upon the upward and downward movement of the diaphragm for respiration, ladies who compress their chests with stays and other close fitting garments would be unable to breathe at all. It is true that such foolish people breathe but little, and that the air penetrates only the upper portion of the lungs. But what little air they do inhale is chiefly obtained by the expansion of the air vesicles, nearly or quite independent of the movements of the diaphragm which becomes literally paralyzed.

The action of the nervo-electric fluids on the nerves ramifying through the respiratory organs, being the motive power which keeps them in motion, and the brain being the reservoir from which the nervo-electric fluids are derived, the reader can readily perceive how necessary is tranquillity of mind for the promotion of convalescence in the consumptive, and also how pulmonary difficulties may be induced by grief and trouble.

Partial paralysis of the lungs may occur when the mind is excessively harrassed. I have had many cases of this kind, and have found electricity of the greatest value in treating it. Electricity is also good to open up a communication between the brain and respiratory organs, when humors of the blood have collected about the nerves connecting the two, and almost intercepted the motive power. Where there are interruptions of this kind, electricity makes up in quantity what it lacks in intensity. Vital electricity is undoubtedly more intense than any which can be artificially produced; but as quantity can be obtained to any desirable extent by various electrical contrivances, it often surpasses intensity in effectiveness.

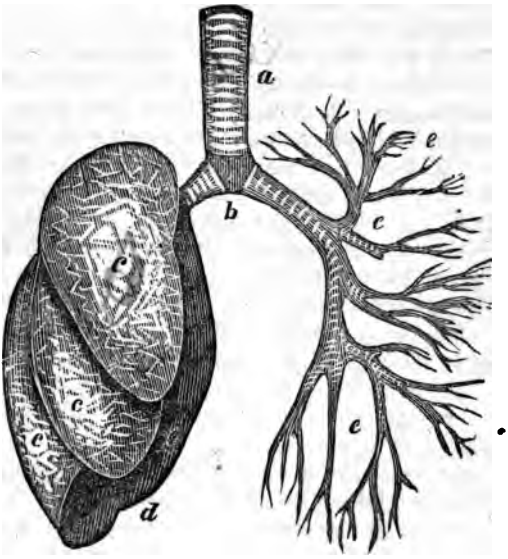
With the advancement which has already been made in the treatment of consumption of the lungs, no one suffering with this disease

should for a moment entertain the idea that his or her case is a hopeless one. No invalid, however dangerously affected with tubercle, ulcer, or other diseases of the lungs, would think of relinquishing hope if once permitted to converse with hundreds whom I have cured. (For treatment see page 231.)

CHRONIC BRONCHITIS

Is often an obstinate disease in the hands of those physicians who have had little experience in its treatment, and who have learned little of its nature and origin. The first cause of this disease always lies

Fig. 28.



THE BRONCHIAL TUBES AND RIGHT LUNG.

a, the windpipe—*b*, its division into bronchial tubes—*c c c*, their ramifications in the left lung, which has only two lobes—*c c c*, the three lobes of the right lung.

in impure blood, and is developed by a common cold, catarrh or fever. In the acute form of the disease the cough is usually dry, showing a preponderance of the positive fluids, but when it becomes chronic, excessive expectoration ensues, evincing an entire inversion of the disease and a preponderance of the negative, alkaline fluids

For this reason the same medicines which may be remedies in acute Bronchitis, may be useless or injurious in the chronic form of the disease.

Bronchitis, unless cured in season, often leads to diseases of the lungs. As will be seen in Fig. 28, the bronchial tubes are extensively distributed in the lungs, for the purpose of conducting the air to their vesicles, and when inflammation exists in the former it is perfectly natural for it to extend to the latter. Every person has doubtless noticed how inflammation in the hand, produced by sores or accidental causes, will frequently communicate to the arm and gradually extend towards the shoulder, till the whole arm becomes affected. Now, the bronchial tubes are as closely allied to the lungs as the hand to the arm, and inflammation or humor affecting one will very soon affect both unless speedily cured.

The act of coughing, which can with difficulty be avoided by the patient, tends to extend the disease. Coughing is an effort of nature to ease irritation. All persons who have ever had an itching eruption of the skin, know how natural it is to scratch. People will scratch when they do not think of it. It seems to be an involuntary effort to subdue the irritation, although it more frequently makes it worse, and the humor and redness of the cuticle spreads over more surface in consequence of it. The same in coughing; the mucous membrane instead of the surface skin being irritable, and the seat of annoyance being unapproachable with the hands or fingers, a sudden discharge of air from the lungs is resorted to, the friction of which administers temporary relief, but as surely increases the latitude of the disease. For this reason, bronchitis should never be neglected. It is consumption in embryo, and many times as obstinate to cure as a deeply seated pulmonary disease. It is not long since that I cured a case of bleeding bronchitis, of a desperate nature, which had resisted the skill of an army of doctors. I have cured hundreds of obstinate cases, given up as hopeless by physicians of the old school, who generally resort to some pernicious local treatment, which, in the majority of cases, produces an aggravation of the difficulty.

There is nothing better calculated to make bronchitis perpetual and obstinate than the habit of bundling up the throat. By this practice the throat is rendered tender and sensitive, and susceptible to colds on the least exposure. When a boy, I was constantly afflicted with this disease, and falling into the same error that most people do who are troubled with the complaint, I never stepped out of doors with-

out winding a great woolen comforter two or three times around my neck. One doctor after another was applied to by my parents, one dosing me with calomel and another swabbing my throat with nitrate of silver (!) until I was nearly doctored into my grave. As I became older, and began to exercise my own judgment, I resorted to simpler remedies, of my own invention, with partial relief; still continuing, however, the foolish practice of enveloping my neck in woolen. But at the age of about fourteen, I determined to make my neck tough, like my face, and not only throw off woolen but also cravat, and turn down my collar on a level with my collar-bone. Soon every vestige of the disease departed, and I have never had a bronchial attack since, though I have sufficiently backslided to resume the neck-cloth.

No one in the habit of bundling the throat can, at all times, avoid exposure when the neck is not guarded. The atmosphere indoors is sometimes as cold as that out, and he who envelopes his throat to his ears in furs or woolen, on stepping out, must keep them on after returning, or a cold is the result.

Neck-cloths in winter should, of course, be discarded gradually, and the neck bathed every morning in cold water. Exposed to the air, the throat becomes no more sensitive than the face or hands, and who, with any frequency, take cold in the latter? Let me not be understood, however, to say that the abandonment of neck-cloths will effect a *cure*, in many cases of bronchitis, for, as before stated, the disease originates in an impure condition of the blood, and that must be thoroughly cleansed to effect a radical cure. The exposure of the neck tends to remove *effects* but not *causes*, and must only be regarded as an aid in the treatment of difficult bronchitis. [For treatment see page 231.]

CHRONIC LARYNGITIS.

This disease has sometimes been called "Clergymen's Sore Throat," in consequence of its prevalence among ministers of the gospel. While clergymen appear more subject to it than most others, it is nevertheless a common disease among members of the legal profession, public singers, school teachers, lecturers, auctioneers and others who are obliged to exercise their vocal organs to a considerable extent.

Laryngitis is a disease of the blood, as much as consumption of the lungs bronchitis, and cutaneous eruptions. The blood, loaded with

impurities, is ever ready to deposit them where there is irritation, or hereditary weakness. Hence, in those having weak lungs, the humors go to the air vesicles—in those susceptible to colds and coughs, to the bronchial tubes—in those exercising the vocal organs to a great degree, to the larynx. This disease is characterized with hoarseness, weakness of voice, dry cough, and sometimes with pains and soreness about the throat.

In talking, public speaking and singing, the air, expelled with such vehemence, has a frictional effect upon the mucous membrane, the same as rubbing the finger on the cuticle produces friction of the skin. This friction produces heat,—the heat attracts the humoral properties of the blood,—the presence of these produce irritation,—irritation induces inflammation,—and inflammation often causes ulceration.

Unless timely cured, laryngitis usually ultimates in consumption. The inflammation and perhaps ulceration of the mucous membrane in the throat, creep insidiously down the air passages into the lungs, and continue their ravages in the delicate linings of those organs.

Laryngitis sometimes occurs in children, induced by attacks of erysipelas, measles, small pox, canker, or other blood diseases. From whatever immediate cause the disease may arise, it should be skillfully treated, and not trusted to the care of cauterizing doctors who treat the body as if it were responsible for its disorders, and as if they expected to punish disease out of the system. Mild and nutritive constitutional treatment must be adopted the same as in consumption. I have met with a great number of cases of this disease in my practice, and have ever found them ready to yield to common-sense remedies. Local applications, I make bold to assert, never *cured* a case of this disease. (For treatment, see page 231.)

ASTHMA

Has generally been regarded incurable by doctors of all schools, and the results attending the treatment of the complaint, strikingly corroborate the opinion they hold. Incorrect views concerning the true pathology of the disease are the foundation of their ill success in treating it. "To know a disease is more than half its cure."

Asthma is of two kinds: humid or catarrhal and dry or spasmodic In the former there is usually an excessive secretion of mucus and expectoration; in the latter none. *In the first form the muscular*

fibres of the bronchia and air vesicles are relaxed, and do not contract; in the last they are contracted and refuse dilation. Hence expiration is difficult in one case and inspiration in the other, both of which forms produce the same result, viz: difficult breathing.

In humid asthma the invalid is in a slightly negative condition compared with the atmosphere, in consequence of which the fluids migrate to the mucous membrane; in dry asthma, in a condition too positive, by which electrical radiation and the movement of the fluids to the surface, is too excessive, (See page 23). The two forms are consequently antipodes, and a climate which is congenial to one is painful to the other. A damp and excessively electrical atmosphere, for a person troubled with humid, catarrhal asthma, augments the severity of his complaint, while one troubled with the dry form finds his difficulty less troublesome if not entirely relieved, in damp, rainy weather or in a climate generally humid. On the contrary an invalid with humid or catarrhal asthma, is seldom affected in dry weather or in a bracing atmosphere, and removal to a climate peculiarly dry, often proves a cure. In fact humid and dry asthma are two distinct diseases, as unlike as typhoid fever and consumption, and require entirely different treatment. The notions of one patient that a dry atmosphere suits him best and of another that a damp air seems more congenial to his system, have been generally charged to the imagination of the sufferers, by the doctors, who tell them they are nervous and whimsical. With these incorrect views they treat one form of the disease with the same remedies they employ for the other. It is not strange, then, that asthma is regarded as incurable by old school practitioners.

Asthma invariably results from constitutional disturbances, by which there is either too little or too much electricity generated in the system; in the first instance, producing an excess of the alkaline fluids by a partial stoppage of electrical radiation; and, in the last, producing dryness of the mucous membrane lining the respiratory apparatus, by an unhealthful augmentation of the natural electrical radiation of the fluids. It is plain, therefore, that to effect a cure, the patient must either seek a climate congenial to his abnormal condition, or have such medical treatment as will change it, and render it healthfully conformable to the atmosphere in which he lives. The diet of asthmatic invalids should also be carefully looked to. In humid asthma, a stimulating animal diet should be resorted to: in dry, a light vegetable diet.

During a long practice, and particularly the past three years, I have been remarkably successful in curing asthma, although I candidly confess that I have met with a few cases which baffled my skill; perhaps as many as one in ten. In the treatment of those in which I have been unsuccessful, I have had usually to contend with old age and serious complications. It is useless to deny that asthma of forty or fifty years standing, with the patient on the wrong side of sixty, is a difficult disease to cure. But equally so is any disease with the same disadvantages. If the patient be young, or not passed the meridian of life, a cure can almost invariably be effected. [For treatment see page 231.]

CHRONIC CATARRH.

Usually affects the head, fauces and bronchial tubes. It is invariably caused by humoral or inflammatory blood, by which the mucous membrane is made sore or inflamed, producing a copious effusion of viscid matter. If it be produced by scrofula in the blood, it is almost certain to end in consumption, unless speedily cured, because it is impossible to entirely prevent the matter from running down the bronchia into the air vesicles; and such is the excoriating or scalding property of the matter, its contact with the delicate lining of the air cells at once causes irritation, and invites the humoral properties of the blood to deposit therein tubercles and ulcers. Catarrh almost always attends consumption, and frequently leads to it.

As in humid asthma, a catarrhal invalid feels best in dry weather, because active electrical radiation decreases the quantity of the mucous secretions; but as the disease originates in an impure state of the blood, a dry atmosphere will not cure it. To eradicate the *cause*, the blood must be thoroughly cleansed—to remove the effect, local treatment is generally necessary. Catarrh should not be neglected, as it is apt to lead to fatal pulmonary complaints. It is easily cured in its early stages, and not very difficult if of long standing. [For treatment see page 231.]

SCROFULA

Is regarded by many physicians as an incurable disease, and many of the victims of it settle down into the same belief, after having been drugged by a score or more of doctors of diplomatic and charlatanical schools, all to no advantage. Seldom am I applied to by a

scrofulous invalid who has not been an extensive patron of medical men, and whose confidence in the curability of the disease and the skill of physicians has been nearly exhausted by repeated trials of different systems. Under the old school treatment, he is the victim of antiquated dispensatory prescriptions; under the new school, a victim, too often, of absurd experiments. But in justice to the medical men of the new school it should be said, that when cures occur they are the authors of them. I never knew of a case of scrofula being cured by Allopathic treatment, but have met many in which the disease had been made more troublesome and obstinate thereby. Salivation by mercury is almost universally attended with injurious results, and the use of iodine, alkalies, acids, lime water, &c., has proved futile in eradicating the disease, though these prescriptions sometimes act beneficially.

Fig. 29.

THE BODY COVERED WITH SCROFULA.

Scrofula is a disease of the blood, and glandular swellings of the neck, goitre, swelled and ulcerated joints, tumefaction, ulceration, tubercles, opthalmy, offensive purulent discharges from the ear, salt rheum, and sometimes spinal diseases, are its manifestations. A most remarkable instance of scrofulous tumefaction was recently given in the Rochester papers, as occurring in Ithica. The sufferer was an orphan boy by the name of Northrop, thirteen or fourteen years of age. He had been subject to tenderness and disease of the hip-joint, which, when he arrived at the age of two years, resulted in extensive tumefaction. Three years later an abscess formed, and finally the disease caused the dislocation of the hip-joint. For four months the patient had been unable to move in bed; abscesses formed in the abdomen, through which the fecal contents of his intestines were discharged, and his nervous sensitiveness was such that he would allow no one to touch him, or make an investigation, and careless walking on the floor caused him to cry out with

pain Finally there projected from the right limb, which had been long swollen, a stem, on the inner side, at the edge of the gastrocnemius muscle, rising at right angles with it, more than seven inches in length, with a flower, squarely set upon it, resembling the China Aster Subsequently, a stem was seen rising at right angles with the limb, at about the height of three inches, crowned with buds resembling those of the orange. On being exposed to the light, the flower expanded, and assumed the color of a beautiful greyish purple. The flowers were composed of a fleshy substance, and were gradually drawn back again beneath the skin. While in blossom, the boy was relieved of pain.

Scrofula is a peculiar disease and is more various in its effects than any other. When it affects the cuticle, producing pustules and ulcers, it not unfrequently spreads over the whole body, as represented in Fig. 29, rendering the patient loathsome to his friends and himself. When it attacks the mucous membrane, tuberculous consumption, dyspepsia, swelling of the bowels, etc., are the result. Deafness, blindness, crooked limbs, spinal deformity, protuberances of the breast bones, cancer and nervous debility, may, and often do, result from scrofula in the blood. And when any one of these difficulties is produced, all treatment which does not act directly upon the impurities of the vascular fluid, to neutralize and cast them out, will prove abortive, and dishearten the patient. Nor can ingredients be compounded in any one medicine so as to eradicate a scrofulous humor, which may appropriately be compared to the hydra spoken of in fabulous history as a monster having many heads, any one of which being cut off was immediately succeeded by another. The disease seems to be a combination of all other bad humors, and as such requires various blood remedies to be taken at intervals, in order to attack the enemy in front, flank and rear.

In late years I have found no difficulty in successfully treating scrofula, and have cured hundreds of cases which had barely escaped with their lives from the hands of old school practitioners, and patent medicine manufacturers. It is usually the custom of scrofulous invalids to take to patent medicines when they have exhausted the skill of the "faculty," mistakenly supposing that any medicine prepared for the blood will be of service to them. But the "one cure all," may not only be inadequate to affect the disease, but unadapted to the temperament, (see page 58,) in which case injury instead of benefit is received. In the treatment of no disease is it

more necessary to consult the temperament of the patient than in scrofula.

The writings of medical men are singularly conflicting in regard to the atmosphere best suited to scrofulous persons. Many assume that scrofula is more common in mountainous countries, because goitre and other external manifestations of the disease are more frequently met with than in warmer and damper regions. Others maintain the opposite opinion, and cite in illustration, the greater frequency of tuberculous consumption in warm and changeable climates. Now, so far as the *prevalence* of scrofula is concerned, I do not believe that there is much difference between a cold and dry and a warm and changeable climate, for in the latter we can find enough consumptives and others affected with internal scrofulous deposits to offset those in the former, who have the external manifestations of the same disease. But, I contend, there is a decided *choice* between the two, for while a warm, damp and changeable climate, in which there is always a preponderance of electricity, the electrical radiations from the system are sluggish, predisposing the humors to locate internally on the delicate mucous membrane of the head, throat, lungs, stomach, &c., a mountainous, dry and negative atmosphere, by accelerating the electrical radiations, predisposes the disease to locate externally, (see page 23). Now who would not rather have goitre on the neck, an ulcer on the limb or salt rheum on the hands than have an internal tumor, ulcers in the lungs or humors in the stomach? The false theories of medical writers concerning this disease and the climate best adapted to it, are owing to their ignorance of the philosophy of insensible perspiration, or electrical radiation. A dry, uniform climate, whether hot or cold, is best suited to prevent the more dangerous development of scrofula.

In regard to diet, let me say first and emphatically, avoid pork as you would carrion, (see page 9). The word scrofula is derived from *scrofa*,—a swine; because this animal is much subject to the disorder. Beef and mutton are as good or better than vegetables, if the animals are not fattened in the stall; but stall fed meat of any kind is liable to be affected with the disease, and is consequently particularly unwholesome for scrofulous invalids. The free use of spring and mineral waters is good, as they assist in cleansing the lymphatic system. Excitement of mind should always be avoided. (For treatment, see page 231.)

RHEUMATISM.

The theory of this disease has never been correctly explained by any one. In fact, there is not even a show of plausibility in any of the written views of medical writers respecting its cause. When this book was first written, I, too, misled by popular errors, gave a very imperfect idea of the real nature of the disease, but my experience and success in treating it has, I am confident, suggested to my mind the correct pathology. In this revision I feel constrained to substitute a new essay for the old one, and in submitting it to my intelligent readers, I feel confident it will be accepted as rational and sensible.

It must be understood by the reader that the arterial blood contains the elements of vitality and nutrition, which it empties into what is called the capillary system. This capillary system is a kind of filterer of the blood, and after the nutritious particles have been filtered from the arterial fluid the latter is sucked up by the minute branches of the venous system and carried back to the lungs for vital recuperation. Then the atoms of nutrition, composed of fluid bone, fluid muscle, etc., move by the laws of affinity to the various parts they are adapted to build up. Now, it so happens that through the effects of bad habits, bad medication, etc., this stream of blood emptied into and diffused through the capillary system is not always pure or free from inflammatory particles. There are corrupt and corrosive adulterations. What becomes of them? They, too, are emptied into the capillaries and are sucked up with the venous blood into the veins, so that they continue in the circulation, or else pass off with the insensible perspiration outwardly, or with the waste matter of the system inwardly. But the coagulation of several of these corrupt particles is apt to take place whenever the pores of the skin are closed by exposure to wet or cold or other causes, or the internal drainage and sewerage are inactive. These coagulated particles of corrupt matter may make their appearance under the skin, producing pustules, scaly eruptions or running sores. They may attack the skin called the mucous membrane lining the throat, bronchia, stomach and other cavities. They may locate about a nerve and induce neuralgia (see page 219), and—now we come to it—they may attach themselves to the arterial tubes and veins, large or small, and inflame them by their corrosive influence. Mercury often forms a part of these coagulated particles of acrimonious matter, and any other injurious mineral may do so. The lodgement of these and the inflammation they induce, render the channels of the

blood sensitive, and the circulation of the vital current through these affected parts becomes painful, just as it is painful to drink when the throat is sore; to pass the feces when the rectum is affected with piles; to pass the urine when the urethra is inflamed or otherwise diseased. What does nature do now? She sends blood in abundance to drench out or dislodge, if possible, these corrosive particles, and the parts become very red from the congestion or pressure of blood therein. This is called acute rheumatism. What if nature does not succeed in washing out these acrimonious atoms? She withdraws the undue supply of the blood from the parts, gives up the contest and continues to perform the function of circulation as best she can, but the passage of the currents of blood through their affected channels still continues painful. This is called chronic rheumatism. When the seat of the affection changes in a single day, night, or hour, as it often does, then it is that these corrosive quicksands have been washed from one position to another. By a sudden dislodgement they may be carried by the circulation to some part far distant from the place they previously annoyed. Now, who will say that here is not, in few words, the whole philosophy of that painful disease called rheumatism?

As my successful treatment of the disease suggested the theory, the theory in turn points to the correct treatment. Any thing which will dislodge the corrupt particles, dissolve *and expel them from the system*, and purify the blood, will give permanent relief. Electricity well applied in conjunction with the adminstration of blood, purifying medicines will do this. Or electrical medication (see page 110) will usually do as well. Many think they are cured when the coagulated particles are merely dissolved and dispersed. But such cures are never permanent. They must be expelled and the blood restored, or the corrosive particles will reunite whenever a sudden change in the weather or exposure to dampness closes again the pores or other avenues through which they escape; for so long as the blood remains impure, so long will the circulation, the insensible perspiration, the feces and urine be loaded with those which daily accumulate.

A careful regard to air, exercise and diet, should be observed by the sufferer with chronic rheumatism. A dry atmosphere is of the utmost importance, and dry stove heat is far preferable to the damp atmosphere out of doors on a rainy day. In dry weather, out-of-door exercise is of the utmost importance, and if the invalid is so badly affected as to preclude the possibility of walking, carriage riding should be resorted to. Animal diet is better than vegetables and

fish, because it excites, in a greater degree, active electrical radiation Pork should be eaten by no one, and should be particularly avoided by an invalid. Beef, mutton, lamb, and venison, are best adapted to the condition of the patient. [For treatment see page [231.]

DYSPEPSIA

May be readily cured, if understood by the physician. Unfortunately, its pathology is little known to the medical profession. My theory is, that it is invariably a blood or nervous disease. When the

Fig. 30.

NERVES OF THE STOMACH.

former, the mucous membrane is affected with inflammation or humor, which prevents the healthy secretion of the gastric juice, and renders the stomach sensitive in the extreme. The food goes through more of a rotting than digesting process, producing heartburn, con-

stipation, flatulency, nausea, and heat and soreness in the stomach. When a nervous disease, it results from a want of nervous or electric circulation from the nervous reservoir (the brain) through the nerves leading to the stomach and liver. Fig. 30 shows how extensively the stomach and digestive apparatus is permeated with nerves. The liver (1) is turned up to exhibit the anterior surface of the stomach; also the gall bladder (2). The organic nerves are marked 3, 3, while the pyloric extremity of the stomach and the contracted portion of the pylorus are indicated by the figures 4 and 5; 7, 7, 7, mark the omentum. Without a liberal distribution of the nervo-electric element through this net work of nerves, the process of digestion goes on sluggishly, and, as in cases of humor in the stomach, the food decays rather than digests, producing some or all of the foregoing symptoms, with the addition of heart palpitation, chilliness, paleness, low spirits, disturbed sleep and languor. This form of the disease is more common with people who lead a life of mental activity, such as professional men and accountants. Grief and anxiety will also often induce it, these conditions of mind, like excessive thinking, having a tendency to consume in the brain that supply of nervo-electricity which should be furnished to the stomach and liver

To cure dyspepsia the cause must first be ascertained. If it results from impure blood, such a system of medication must be adopted as will effectually expel the humors from the vascular fluid, and the diet must be left entirely to the patient, who should select such articles of food as seem to give him the least uneasiness. If it grows out of deficiency in the supply of nervo-electricity from the brain, the patient should give his mind repose by a temporary abandonment of his professional pursuits, and the adoption of muscular exercise in the open air, an animal diet, and the use of such medicine as will restore the nervous system to its wonted vigor.

"Hunger cure" never cured dyspepsia. By keeping nutritious food out of the stomach, or partaking sparingly of a Graham diet, the stomach will become quiet and less troublesome; in other words, you can tame a diseased stomach, as you can a savage animal, by starvation; but as soon as the patient returns to solid food his stomach will rebel again. I have often been applied to by dyspeptics who have been through a course of regular hydropathic treatment, (which includes the "hunger cure.") They had left hydropathic institutions with the supposition that they were well. But a return to their customary diet brought back all their troublesome symptoms.

and they were again on the sick list. By adopting one of the two courses indicated in the preceding paragraph, I have never failed in effecting for such sufferers, *radical cures*. (For treatment, see page 231.)

PILES

Have ever been considered a somewhat difficult disease to cure by the medical profession generally, though I have met with few cases in my practice which have not yielded to proper treatment. Their symptoms have been correctly described as follows: "Small tumors on the verge of the anus or a number of varicose veins surrounding it; itching, weight, tension and a sense of bearing down or pungent pain in the fundament, or perineum, more especially on going to stool; pains in the back or loins; vertigo; headache; discharge of blood from within the anus; frequent desire to go to stool; varicose or enlarged veins; hard tumors, sometimes indolent or painful; excoriation or erythema about the anus." The disease may be attended with one, part, or sometimes all of the above symptoms. Piles are of two kinds—varicose and tumorous. The former is produced by a distention or enlargement of the veins in or about the verge of the anus, usually arising from constipation, and the latter from humors in the blood. Both may be strictly regarded as blood or nervous diseases, because constipation is the offspring of vascular or nervous derangements, and tumors, of impure blood. Consequently to cure piles of either description, the physician must go back to first causes.

Tumorous or humoral piles are by far the most common, and occur in people of all ages, though seldom in children under fifteen years of age. The exciting causes of these are numerous. Anything which tends to irritate the lining of the anus, is liable to attract the humoral properties of the blood to that locality. Many people are extremely careless what they use to cleanse the parts after stool. This evil is so exceedingly prevalent, particularly in farming countries, I must be excused for adverting to it. Nothing is more common than to find in the "little-house" of a farm-yard, a huge pile of corn cobs, for the purpose indicated. Now, to frictionize the external skin with a harsh instrument of this kind would be sufficient to produce eruptions or sores upon any one at all affected with blood impurities, but, applied to the delicate membrane of the anus, no one addicted to the practice can escape having piles, unless his blood is remark

ably pure. Leaves of plants are often used with like results. The leaves of almost all descriptions of vegetation are more or less bearded or coated with a kind of fuzz which, when brought in contact with the mucous membrane, causes irritation. The softest of paper should always be used, and particularly by those subject to piles, and no one should make use of any thing coarser than newspaper. A cob, a leaf, or a piece of rough paper, may bring on an attack of piles, and this may in time develop fistula, a disease not easily cured.

Inasmuch as constipation is frequently the proximate cause of piles, particular care should be taken to keep the bowels in a condition to expel the fæces easily. The chief cause of constipation will be indicated in my essay on the liver; but I will here speak of some habits which, at least, aggravate this annoying trouble. Principal among these is irregularity in attending to an important "call of nature." Every man, woman, and child should have a stated hour, from which he or she should reluctantly deviate if the house is on fire. Persons accustoming the bowels to move at a certain time each day, will find that organ ready to respond to his or her efforts, and they will further find that if they pass much beyond the usual time, constipation will exhibit itself.

The habit many have, of reading or thinking intently on business or domestic affairs, of nursing griefs and taking a retrospect of a gloomy past, or, in fact, of engaging the mind either in reflection or diversion, while at stool, tends to retard the bowels in the exercise of their functions and consequently produces constipation. The "Harbinger of Health" very sensibly gives utterance to the following language on the subject: "Any mental occupation foreign to the proper and prompt performance of the function, is positively certain to stamp the impress of disease upon the weakest part; and, inasmuch as, while engaged in this particular function, the vessels and fibres of the rectum are distended and principally taxed, so is inattention at the time most likely to produce one or more of the above-mentioned forms of hemorrhoidal disturbances." By concentrating the will upon the parts which expel the fæces, costive persons will find it much easier to relieve themselves of excrementitial matter.

Tight-fitting dresses, such as ladies frequently wear, tend to paralyze the abdominal muscles, so that they cannot properly compress the bowels, under the action of the will. Deprived of the influence of abdominal compression, the intestines become engorged with fæcal matter, and each stool is attended with pain and unnatural

distention of the rectum and anus. Sitting in a cramped position tends to the same result. Sitting in cushioned chairs, upholstered with worsted, enameled cloth, or other heating material, tends to produce irritation in the anus, and this irritation produces piles. For persons at all predisposed to this troublesome complaint, cane-seated chairs are far preferable to any others.

Fig. 31.

THE RECTUM laid open, to show its appearance when affected with Piles.

Drinking fluids while eating greatly retards digestion, by not only diluting the salival fluids, but also the gastric-juices in the stomach. Many persons depend entirely upon artificial moisture to lubricate their food. Every morsel they swallow should be well mixed with the salival fluids which nature furnishes. Persons predisposed to constipation, who mix drinks with their food, of course suffer more, and if inclined to have piles, these are aggravated by the constipation.

It will be seen by the foregoing hints, that invalids may do much to avoid hemorrhoidal difficulties if they will. Prevention is the best remedy, but when this fails, do not be too reckless in the choice of remedies to effect a cure. It is not safe to resort to local discutients; many a life has been sacrificed by Pile-ointments and salves. The use of such remedies only tends to drive the impurities to vital parts of the system. Piles, unless induced by bad habits, are only "angels of mercy," for the vitiated properties of the blood giving rise to them, would have surely attacked some vital organ, if they had not located in the anus and rectum. The only local treatment at all admissible, is electricity. This may be applied directly from an electro-magnetic machine, or in the form of electrical embrocations, or ointments. But this local treatment should be accompanied with constitutional remedies to remove the *cause* or causes. My electrical apparatus for treating piles is the most complete thing that has been invented for the purpose. But I seldom meet with a case that does not need blood purifying and nutritious medicines, to aid in effecting a cure. With these remedies combined, I scarcely fail to effect a cure in every case, not too far advanced in years, that presents itself, whether the patient has the advantages of treatment with my Magnet-

ic-stool (see page 105) or, living at a distance, adopts a course of my electrical medication. Those of my readers afflicted with piles, who cannot consult me personally are referred to pages 110 and 238.

Horseback-riding is good for gentlemen troubled with this disease. Theodore Parker once facetiously remarked that the "outside of a horse is good for the inside of a man." This was said, of course, with more especial reference to dyspeptics and those who do not take much exercise, for the outside of a horse is equally good for the outside of a man. Ladies would be quite as much benefited by horseback-riding as gentlemen, if they would invent some costume which would enable them to ride gracefully astride. It is questionable whether ladies derive any greater advantages from equestrian exercise than exhilarating joltings and the breathing of the pure atmosphere of heaven. Their cramped-up position on the saddle does not allow a free and easy play of the muscles, such as gentlemen experience with both feet in the stirrups, and presenting an untwisted front. Ladies have yet to work a reform in this matter. There is no good reason why a lady should put one of her limbs to sleep over the pommel, and occupy a distorted position every time she takes a horseback-ride. While fashion may treat with scorn and contempt the suggestion that a lady should ride astride like a man, common sense cries out against the present ridiculous custom.

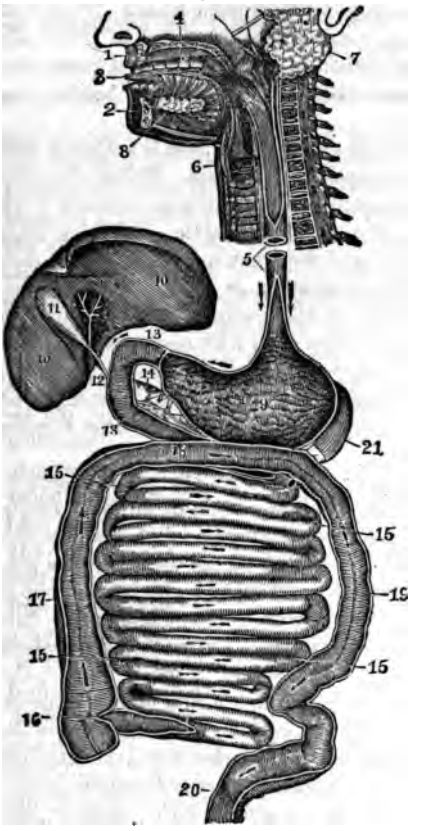
For external piles, and especially those of a varicose nature, or falling of the rectum, the Pile Compresser (see page 381) yields great relief and comfort. The effect of the wearing of this ingenious instrument in cases of external piles is very similar to that produced by frequent horseback-riding. The continuous gentle pressure of the congested parts serves to relieve them of their painful and sometimes unendurable distention, and to induce a more natural circulation of the blood in them. For those who have not the time or means to indulge in equestrian exercise, and particularly for ladies who are compelled by King Custom to so seat themselves on the saddle as to derive little advantage therefrom, the Pile Compresser is invaluable. Even if under skillful treatment for the removal of both the disease and its cause, something is needed to give relief while the good work is going on, for piles cannot be permanently cured in a few weeks under any system of treatment, unless driven in by injudicious local embrocations. Then, there are persons advanced in life who cannot be cured, and who, consequently, require something to render them comfortable. To such I would most urgently recommend the Pile

Compresser; while those of all ages, suffering with falling of the rectum or bowel who adopt it, will pronounce this mechanical invention an inestimable blessing.

THE LIVER.

This organ, which is the largest in the body, is subject to a variety of chronic as well as acute disorders. Before entering upon any description of the former difficulties, I should make my readers acquainted with the office of the liver. It is not enough to say that it is intended to secrete the bile and waste matter from the venous blood. The bile performs an important part in the process of digestion, and the removal of excrementitial matter, which should be understood before the importance of a healthy liver can be appreciated. Let us examine, then, the process which food goes through to nourish and support the system: First, it is taken into the mouth, and is, or should be, thoroughly mixed with the saliva, by proper mastication. This (the saliva) is electrically a negative, because an alkaline fluid. Descending the œsophagus, it is precipitated into the gastric juices of the stomach, which are electrically a positive, because an acid fluid. Here, under the laws of electrical attraction, the gastric or positive fluid takes hold in earnest in penetrating and dissolving the particles of matter already permeated by the saliva or negative fluid. This process is further stimulated by the presence of nervous or electrical forces sent from the brain, through the pneumogastric nerves, which keep up a constant telegraphic communication between the brain and the stomach. (See page 3.) By the time the digestible portions of the food become dissolved and well saturated with the gastric or positive fluid, it is next carried into the lower stomach, or duodenum. Here it meets with two fluids, one, the bile, sent by the liver through the gall-bladder and its ducts, and the other, the pancreatic fluids furnished by the pancreas or sweetbread. Now the latter, like the saliva, is strongly alkaline, or negative, and, inasmuch as that portion of the food which has been reduced to the finest pulp contains the greatest quantity of gastric or positive fluid, a combination at once takes place between them. Then the bile is slightly alkaline, or negative, while the indigestible portions of the food are only slightly saturated with the gastric or positive fluid, consequently these very naturally coalesce under the laws of chemical or electrical attraction. Fig. 32 will assist in giving a proper understanding of this explanation. Thus we see how the nutritious matter is separated from the innutritious or use-

Fig. 32.



DIGESTIVE MACHINERY.

Figure 32 will give a correct understanding of the relative positions of the various organs of digestion. 1, upper jaw; 2, lower jaw; 3, tongue; 4, roof of mouth; 5, œsophagus; 6, trachea; 7, 8, salivary glands; 9, stomach; 10, 10, liver; 11, gall-bladder; 12, the duct which conveys the bile to the duodenum or lower stomach. The duodenum is represented by 13, 13; 14, pancreas; 15, 15, 15, 15, small intestines; 16, opening of the small intestine into the large intestine; 17, 18, 19, 20, large intestine; 21, spleen.

less. Under the laws of electro-chemical attraction, marriages take place between inanimate as well as between animate bodies. The pancreatic fluids marry the nutritious, and the bile marries the innutritious. The former combination is sucked up by the absorbents to nourish the system, while the latter passes along down into the colon, where there is a sort of rendezvous for fecal matter. How well adapted the bile is to act as a consort must be seen when it is remembered that it is a soapy kind of fluid, well calculated to lubricate the fæces and make them pass easily through the intestines. The bile, too, gives the yellow color to the fecal discharges.

I have never seen in any medical work, nor have I ever heard, a philosophical description of the process of digestion, and the separation of nutritious from innutritious matter. I presume the theory I have given will be new to all my readers, professional as well as non-professional; but, when the chemical constituents of the bile and the pancreatic fluids are

taken into consideration, together with those of the saliva and gastric juices, does it not perfectly accord with common sense? If so, and I think it does, it is eminently proper that the pages of this book should give birth to it, for the author of MEDICAL COMMON SENSE desires to make them the disseminators of original views, bearing the impress of self-evident truth.

The most common derangement to which the liver is subject is torpidity. This is the result of nervous disturbances. Either the nervous forces are unequally distributed among the organs, or there is an insufficient supply of nervous vitality in the system. In either case, the liver lacks nervous stimulus, and the organ may be said to be partially paralyzed. Grief, fright, dissipation, or some bad habit, may produce an unequal distribution of the nervous forces among the different organs of the system. I often meet with cases wherein there is too great an expenditure of nervous force upon the heart, producing too rapid pulsations or palpitation, while the liver is almost deprived of it. Other organs may sometimes receive an excess at the expense of the liver.

When nervous debility exists, or when the patient is unconscious of any such debility, and his system does not contain its ordinary supply of nervous vitality, with which to keep the various vital organs active, Nature, ever disposed to avoid greater evils, is apt to withdraw a portion of the nervous stimuli from the liver. Why? Because no one of the other vital organs can be slighted with the same impunity. Partially deprive the heart of the nervous forces, and its pulsations would become so feeble that death would soon ensue. Partially deprive the diaphragm and lungs of them, and respiration would become difficult. The patient would gradually die of suffocation. Partially deprive the kidneys of them, and the secretions of the urine would be retarded, speedily followed with dropsy or something worse. Digestion of food in the stomach must go on, however imperfect, or the system wastes for the want of nourishment, and nervous force must be supplied in abundance to stimulate the digestive process. In brief, the partial withdrawal of the nervous or electrical forces from any other vital organ than the liver would be followed with more dangerous consequences. Still, good old dame Nature, the common-sense nurse, will not deprive the liver of its due share of nervous stimuli, without giving notice at the same time to the invalid. She paints his face yellow with the bile, which the liver fails to secrete from the blood. She constipates his bowels, and in some cases, to urge him on to give

proper attention to himself, afflicts him with a painful and annoying difficulty in the rectum and anus called piles. While thus urging the invalid to give her means whereby to relieve the liver, she often gets insulted with a dose of calomel. She "asks for bread and gets a stone." But she graciously pockets the insult, knowing that it is the esult of ignorance, and applies the nervous force, generated by the contact of the mercurial substance with the gastric juice or acid of the stomach, to the stimulation of the liver. The good old dame is then pestered to know how to get rid of the mercury, and, in some cases, allows it to attack some muscle, bone, or nerve in order that the pain resulting therefrom may drive the victim to efforts to get rid of it.

Although torpid livers are found almost everywhere, they are more common in the South and newly settled West than in any other localities in this country. I scarcely ever examine an invalid from the South, who has not a dead liver. My theory for this is, that in tropical latitudes, in consequence of the expansion of the air by heat, less oxygen by weight is inhaled, and that consequently there is not so much oxygen or electricity imparted to the system, through the medium of the lungs, as in colder climates, while, at the same time, the blood is less decarbonized, leaving more for the liver to do. Under such a climatic influence the system is apt to become deficient in nervous vitality, and overloaded with carbon, unless the habits of the people are good.

Proper attention to diet and other habits would, in a majority of cases, avert such a tendency; but our friends in hot climates like living up to the Northern epicurean standard, and not unfrequently absolutely exceed it. Thus, an excess of work is given to the Liver by the use of too much carbonaceous food, and less nervous force is supplied by respiration to enable it to perform the labor. While, in the extreme North, barbarous epicures may glut their stomachs with the blubbers and skins of whales, putrid whales' tails, decayed seals, the entrails of the rypeau, mixed with fresh train-oils, etc., without serious consequences, those of Southern latitudes should eat but little animal food, and particularly avoid rich gravies, and other aliments which fill the system with carbon. "Greasy matters," says a popular writer, "though composed mostly of waste, useless, and excrementitial materials, which have accumulated in the cellular repository because the process of alimentation was increased beyond that of elimination, are not strictly poisonous. They doubtless contain a very small quantity, yet very impure quality, of substances converti-

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ble into nutriment. But as food they are to be regarded *as next to venous blood* in grossness and impurity." Considering, then, that the liver has to filter out a great share of this impure and gross matter, it can be readily seen why, at least, those living in climates predisposing them to inactive livers, should not eat such food. Instead of being more careless in their diet, the inhabitants of warm countries should be much more careful than those living in colder climates, so that, by preserving a healthy liver, this organ may do part of the work usually given to the lungs. Where the air is expanded by heat, and consequently less oxygen by weight inhaled at each inspiration, there is need for this. In unborn infants, who are entirely shut out from the oxygen of the air, the liver has to do the work of the lungs in decarbonizing the blood, but nature provides for this necessity by making the liver larger than all the internal viscera, and still larger in proportion in utero life. After birth, when the lungs begin to perform their functions, this relative disproportion is modified, and it then behooves the more developed being to keep both organs in a healthful state. People living under a southern sun can do this with care and the exercise of a little self-denial. Their food should be nutritious rather than stimulating. Gluttony and dissipation above all things should be rigidly avoided. Remember that the golden rays of the sun may paint the complexion brown, while every organ is faithfully performing its functions, but that when old dame Nature brings in a tint of yellow, the liver has failed in the performance of its duty.

Fig. 33.

What I have just said regarding the influence of the atmosphere of the tropics on the liver, is applicable to the Caucasian rather than to the Ethiopic race. The Creator has done all things well, and those who were especially made to breathe the scorched air of tropical climes have broader nostrils and greater depth and breadth of the respiratory apparatus (see fig. 33), so that they may inhale a greater quantity of the heat-expanded atmosphere at each inspiration than can the Caucasian (see fig. 34), with his compressed nostrils and less capacious throat and lungs. The liver, too, of the negro, is proportionately larger, while his nervous system does not possess that acute sensitiveness and lia-

bility to disorder which characterize the finely organized nervous structure of the white man. Nor does he seem to require so much nervous stimuli to carry on his sluggish physical machinery. "Sambo" is a stranger to nervous diseases. He sometimes has liver derangements arising from vascular impurities, but even then he gets off with comparatively little suffering, for the reason that his excretory pores are as much more open than those of his white neighbor as the texture of his skin is coarser. Hence the odorous effluvia which proverbially emanate from the skin of the unadulterated negro. In perfect health, the excretions of his skin greatly relieve the depurating labors of his liver, and when hepatic difficulties do overtake him, the amount of the excretions is considerably increased, unless the pores are simultaneously closed.

The physical organization of the Ethiopian also better enables him to withstand the deleterious influences of bad air in malarious districts. It has been found that the hanging of wet blankets or sheets at the open windows in malarious regions greatly purifies the air which enters an apartment. This is because water is a disinfectant, rendered so by its disposition to take up poisonous gases. Well, now, the negro has as good protectors as wet blankets or sheets at his mouth and nasal passages. The red lining of the lips and nostrils in health is always moist, as all know. Hence the large lips and nostrils with which he is provided, with their large surfaces of the moist red lining or mucous membrane, serve as disinfectant protectors, such as the Caucasian, with his thin lips and compressed nostrils, does not possess. And the rule may be put down as invariable, that those persons, black or white, who have the thickest and widest lips and the largest and broadest nostrils, can the best endure the depressing atmosphere of malarious tropics.

Fig. 34.

Disturbances in the purity and tonicity of the air are what predispose the people of new countries to torpid livers. The miasmatic emanations from the soil of a country recently cleared of its timber and shrubbery, greatly adulterate the atmosphere, and thereby induce those nervous disturbances which are so apt to leave the liver with-

out sufficient nervous stimuli. Our Western friends are famous for torpid livers. Nearly all of them are enveloped in sallow skins, and in those presenting themselves to me for medical examination I usually find the liver seriously involved, whatever other complications may exist. Even the livers of beef cattle driven here from those regions, and slaughtered for our market, are seldom free from disease.

It may not be possible, therefore, for the pioneers of new countries to entirely escape hepatic or liver complaints; but it is nevertheless true that such difficulties are more prevalent among them than would be the case if proper regard were paid to hygienic laws. Western farmers are proverbially great pork eaters, and pork eating overloads the blood with carbon and gives the liver too much work to do. Nor are farmers alone addicted to the use of filthy swines' flesh. The denizens of Western cities glut their stomachs with spare-ribs and sausages. The farmers usually carry more healthy countenances than citizens because their physical exercises are better calculated to dispose of the excess of waste and impure matter by perspiration. There is another reason why citizens wear a more sallow skin than the industrious farmer, which is, the vice in all cities of turning night into day, while farming communities, exhausted with physical labor, retire early. A Western citizen supposes he can expose himself to night air with no greater injury than the indweller of the old eastern cities receives who does the same foolish thing. This is an error. Miasmatic vapors, as before remarked, are more excessive in new cities, and at night-time they mingle more freely with the lower strata of air. Then, too, vegetation which, during the day, takes up carbon and gives off oxygen, reverses this process at night, so that carbonic gases are its nocturnal exhalations.

Here, then, we see why our Western neighbors cannot imitate the vices of Eastern metropolitans without suffering a severer penalty by bringing upon themselves greater derangements of the nervous harmony and biliary system. To avoid these derangements they should not indulge, excessively, in carbonaceous food and drink; they should retire early; select for sleeping-rooms those apartments most elevated from the ground, in order to get beyond the miasmatic gases which hover near the earth's surface at night-time; open the windows for ventilation, and if the sleeping-room be near the ground, to escape the poisonous vapors, hang wet curtains before the windows, for water as before remarked, is an excellent disinfectant, and readily takes up deleterious gases. In the most unhealthy localities it is better to venti

late sleeping apartments by this process than to breathe over and over again, the air which has been poisoned by the exhalations from the lungs and skin.

Persons of sedentary habits in all countries, can see from the preceding suggestions, the necessity of breathing pure air and observing correct dietetic rules, if they would preserve healthy livers and a skin free from the sallow tint of bile.

There is a disease of the liver which is the perfect antipode of torpidity. This is called Hepatalgia. It seldom occurs, except in persons of a neuralgic diathesis. It is in fact a kind of neuralgia of the liver. There is both an excess and an abnormal circulation of the electrical forces in the nerves of this organ, producing paroxysms of pain with intervals of rest and comfort. The functions of the organ are not interfered with, and the tongue is often free from any coating. If coated at all, it is of a slight creamy character, and the urine is greater in quantity and lighter in color than is usual. As already intimated, persons subject to nervous irritability or inflammation are alone liable to this disease, and every thing which tends to unduly excite the nervous system in such cases, is calculated to induce or aggravate an attack.

Contact with the atmosphere of damp basements, mouldy buildings, and marshy localities, frequently predispose people to grub in the liver. It has been found by actual microscopic experiments that the air of such places is generally infested with a kind of animalculæ which are awakened into new life and development when inhaled by an individual whose blood is not free from impurity. Sometimes they remain in the respiratory organs, producing grub consumption, but more frequently, nature tries to dispose of them by getting them into the venous blood so that the liver can have an opportunity to send them off with the bile and waste matter which mingles with the excrements. If the liver is not torpid, and if the blood does not contain impurities calculated to give them nourishment, it will usually accomplish this. But if torpidity or any derangement of the liver resulting from impure blood be present, then they will take lodgment and prove troublesome creatures to get rid of.

"Renault once analyzed the stomach, liver, and lungs of a man who died in a damp cellar, submitting its parts to microscopic investigation, and found that the interior system of the poor fellow was literally swarming with animalculæ. He declares that in order to have these parasites enter the human frame, 'it is not required that matter in

Fig. 33.

GRUBS IN THE LIVER.

which they abound should be taken into the stomach. At a certain period of development, the cell containing the germ bursts, and it floats out on the air, seeking lodgment. If at this time it is inhaled, the effects will be the same as though it were swallowed. A man may be poisoned, therefore, from breathing the air of a close cellar, or from 'inhaling the odors exuded by the putrefying carcass of a dead dog.' Science thus shows it to be possible for human beings to be attacked and slain by animals so insignificant in size that the unaided eye cannot even distinguish them; but so incomprehensibly numerous, that islands and reefs have been built by their efforts."

Pork-eating sometimes causes grub in the liver, as might be inferred by the perusal of pages 8 and 9. Whatever the cause, the disease is always attended with exceedingly disagreeable, if not actually painful sensations. The parasites occasion a peculiar gnawing feeling in the region of this organ which can hardly be described, and in such cases discharges from the bowels are not unfrequent, at times, copious, watery, and more or less permeated with the vermin, and, at others, constipated and tender.

Impure and impoverished blood in many cases gives rise to Consumption of the Liver. Ulceration, tubercular affection, and decay of the organ, may very properly be placed under this head. In brief, whatever tends to decompose or destroy it, may be properly termed Consumption of the Liver. This difficulty is usually attended with a cough, vomiting, sudden changes of countenance, and at times with all the ymptoms of pulmonary consumption. This is particularly the case when the liver has glued itself to the diaphragm and the lungs, so as o open a passage into the bronchiæ for the discharge of its tubercular and cancerous matter. When such an adhesion or discharge through the respiratory apparatus takes place, the symptoms are exceedingly deceptive, and often lead to the grossest errors on the part of medical men, who are usually too apt to form an opinion of the nature of a case by taking into account the most prominent symptoms. But external symptoms are often unreliable, unless considered in all their relative bearings. Any invalid at a distance suffering with

a disease of an obscure nature, should answer the questions to invalids, in this book; and I feel confident that with such information before me, I can arrive at a correct diagnosis. Those living where they can consult me in person need not give symptoms, for one of my searching examinations cannot fail to reveal to my mind the real nature of the case. It is extremely hazardous to treat liver consumption as if it were lung consumption, for the reason that remedies usually given for the latter are very obnoxious to a weak and disabled liver. Medicines of an oleaginous or fatty nature are particularly fatal. Almost every thing which enters into the composition of the popular cough-syrups is also extremely injurious.

Besides torpid, wormy, and consumptive livers there are several diseases of the organ, which often assume a chronic character, among which are inflammation and enlargement of the liver. These diseases are attended with more or less cough, headache, clay-colored stools, pain in the right side, shoulders, and often with swelling over the region of the liver. The invalid is apt to be melancholy, dyspeptic, irritable, sallow, emaciated, and costive.

Constipation is liable to be a close companion of all derangements of the liver. The reason for this is, that when the liver is affected the bile is not properly secreted, and when this fluid is withheld from the duodenum, the innutritious is not properly separated from the nutritious matter, while the excrementitious deposits in the intestines become hard, dry, and irritating, in consequence of the absence of the soapy fluid, which, furnished in abundance, softens and lubricates the fæces, giving them an easy passage through the intestinal canal.

An inactive liver and obstinate constipation, in many cases, compel nature to dispose of the bile and waste matters through the excretory pores of the skin. When so expelled, the effluvia of the person are very offensive, and the linen worn next to the skin quickly discolored. If the under garments are worn for a day they look as if they had been colored by a dyer. Such invalids owe it not less to their companions and friends than to themselves to adopt early and thorough medical treatment. They are a stench in everybody's nostrils, or, in brief, traveling nuisances, which should be speedily cured or abolished. Such persons generally feel pretty comfortable, because nature manages to dispose of the excrementitious matter. The atmosphere becomes their privy or water-closet, and no one would be surprised at the intuition of the dog in smelling out the tracks of his master, if all men were thus diseased. Constipation may often be re-

lieved by relaxing articles of food and fruits. Grapes are useful in such cases when the seeds are swallowed with the pulp. The Medical Magazine, in speaking of the virtues of the grape, remarks as follows: "When in health swallow only the pulp; when the bowels are costive and you wish to relax them, swallow the seeds with the pulp, ejecting the skins; when you wish to check a too relaxed state of the bowels, swallow the pulp with the skins, ejecting the seeds. Thus may the grape be used as a medicine, while at the same time, it serves as a laxative, unsurpassed by any other fruit. An adult may eat from three to four pounds a day with benefit. It is well to take them with or immediately after your regular meals." The French say of the grape that "it not only dilutes the thick blood, but sends the circulation to the surface, giving color to the pale cheek; that it removes obstructions from the liver and lungs, aids digestion, brings the stomach and bowels into a healthy state, dislodges gravel and calculi from the kidneys, and confers vigor and health upon the prostrate system." All relaxing fruits are at least good for constipation. Kneading the bowels too with the hands has a favorable effect in relieving it. This exercise may be practiced every day to advantage by persons of constipated habits. But the proper way to cure constipation is to go to work at the cause or causes.

Liver derangements of all sorts, which are generally the causes of constipation and hundreds of other unpleasant symptoms, are usually curable, if properly treated. Mercury often relieves, but never cures a case of chronic liver disease. Even if it were an actual specific, the remedy would be far worse than the disease. The way in which mercury stimulates the liver to action is by its generation of nervous or electrical forces in the stomach, which forces are conveyed to the liver by the nerves connecting it with the stomach. Mercury is often employed by the electrician to produce electro-galvanism, and the gastric or acid juices of the stomach make the same use of it as do the acids of the galvanic battery. What is chiefly wanted then to give temporary relief is something that will, by contact with the gastric juices of the stomach, readily generate nervous or electrical force for the stimulation of the liver. Such a remedy can be found without poisoning the system with calomel or blue pills. My magnetic anti-bilious pill is a charming substitute for blue pill, and is so considered by all who have tested its virtues. The necessity for employing mercury in any form is removed, if any such necessity really ever did exist, by the discoveries in electro-therapeutics. My magnetic pill, which I

claim to be an innocent substitute for mercury, should be in every house in the Western and Southern states, for inasmuch as it produces its effects by electrically stimulating the biliary system to activity, it is suited to all temperaments and all climates. In the incipient stages of liver affections it gives immediate relief, and, in fact, may be given beneficially in all cases in which calomel is employed by old-school practitioners. A person making use of this excellent remedy can feel sure that he is not filling his system with pernicious drugs. (See page 382.)

In the treatment of obstinate and difficult liver complaints, however, poisonous mercury and its harmless substitute are of little avail In such cases the *causes* should be ascertained. If of a nervous character, as in torpidity and hepatalgia, a course of treatment embracing electricity in some form must be employed, and if the invalid cannot avail himself of the inspiring currents of the Electromotor at my office, together with such adjunctive treatment as may be necessary, he should have recourse to electrical medication. (See page 110.) If the offspring of diseased blood, as in the case of grub, consumption, chronic inflammation, and enlargement, electrical medication is alone the proper treatment. I like to treat diseases of the liver. My rational system of electro-therapeutics seems to hit the right spot, and many a despondent sufferer has been made glad with the inspiring effects of my electrical applications, accompanied with suitable adjunctives, or with the building-up virtues of my electrical medication. Those who cannot consult me personally are referred to page 238. A full description of the case would enable me to correctly diagnose and prescribe. Above all things avoid mercury. It is quite as comfortable to suffer with hepatic or liver complaints, as with rheumatism, or mercurial sores. Better take beer boiled with horse-shoes (!), and die on the spot. This was a remedy recommended by an illiterate fellow in Sherbourne, England, recently, and it came near killing the patient. Still, death is a blessing compared with the tortures of mercury, and I am not sure that I would not adopt the Sherbourne remedy in preference to the blue pill.

Fig. 86.

The pancreas and its ducts through which the pancreatic fluids pass to the duodenum.

If proper regard would be paid to the various ways of avoiding liver affections, which are suggested in this essay, much suffering would be averted. Those, however, who are already victims to such

complaints must resort for relief to proper remedies, and in haste to get well they should not tamper with those poisonous and powerful preparations, which are so apt to leave the system in a worse condition than they found it. It hardly pays to exchange one disease for another, particularly when it is almost certain that you are going to get the "worst end of the bargain."

CHRONIC AFFECTIONS OF THE URINARY ORGANS.

In my practice I have a very large percentage of cases suffering with diseases of a chronic nature, located in some part of the urinary apparatus. So closely connected, anatomically, are the urinary with the procreative organs, and so greatly are the latter abused, it is not surprising that the former are frequently the seat of painful and dangerous affections. In both sexes the amative passions are prematurely developed and stimulated. These, at an early age, too often lead boys and girls into private vices, and the mature and married into sexual excesses and pernicious modes for the prevention of conception (see page 335), all of which physical violations are well calculated to disturb the nervous harmony of the parts, impoverish and vitiate the blood, and to lay the foundation for serious derangements of those organs which secrete and discharge the urine. The most common of these diseases are:—chronic inflammation in the kidneys; weakness in the kidneys; consumption of the kidneys; grub in the kidneys; chronic inflammation in the bladder; paralysis of the bladder; gravel; chronic gonorrhœa or gleet; stricture of the urethra, etc.

The office of the kidneys is to secrete the useless alkaline, and calcareous particles, and the soluble fluids, from the blood. The bladder is the reservoir for these, and the urethra is the waste-pipe for carrying them off. Every body living in houses supplied with aqueduct water knows how much trouble it gives the kitchen maid when something, by her own carelessness, obstructs the waste-pipe. Now old dame Nature has double the trouble of any "Bridget" in keeping human water-pipes in order, not from any dereliction of duty on her part, but from the carelessness and imprudences of man and woman kind generally. Mechanical water-pipes could never endure the abuses which are almost daily inflicted by men, women, and children, on those organs made in part, by the economy of nature, for the purpose of carrying off the waste fluids which nature wishes to dispose of.

Albeit, it is useless to moralize, even in this quaint way. Genera-

tion after generation passes off the stage of life, one profiting little by the experience of its predecessor. Individuals suffering with such troubles only intrust the secret to their physician, and the mass of humanity goes recklessly on, vainly thinking that this first, second, or third abuse of the delicate urino-genital structure will not be followed with a penalty, until a large proportion of all have at last tasted the bitter cup, while some drink it to the dregs. It is therefore waste of words for the medical writer to do more than point out the dangerous shoals and breakers, and then turn his attention to those already wrecked, and who are too often catching at straws to save themselves. I will therefore pass to the consideration of some of the diseases I have adverted to.

CHRONIC INFLAMMATION OF THE KIDNEYS is characterized by heat and pain over the loins, and more or less dull pain in the lower part of the back, often extending down into the bladder and groins. The urine has usually a bloody or high-colored appearance and a variableness in quantity. If actual pain does not exist in the region of the kidneys, there is a tendency to soreness on pressure. These symptoms are more or less modified or changed when other complications exist, and it is usually the case that this disease is accompanied with other disturbances.

Inflammation of the kidneys is generally induced by vascular derangements, but when caused by any contusion of the parts, the danger and obstinacy of the difficulty is enhanced. The profession generally find mechanical injuries troublesome complaints to manage. In fact, in difficult cases of this nature the usual remedies for inflammation seem to be unavailing. A farmer in Saratoga county, who, in cutting down a tree, had the misfortune to be prostrated by its fall, received an injury in the kidneys which came near costing him his life. Before he consulted me he had examined all the "pathies," and called on all the doctors he knew. Having been urged to see me, he presented himself at my office a pale, emaciated individual, suffering agonies with his back, and having every appearance of being in consumption. Besides his weak and painful kidneys, he had a bad cough; and what was still worse, no faith that any body could cure him. There were, indeed, alarming indications in his symptoms, but having had good success in similar cases, I gave him my opinion, and advised him to try my electrical system of practice. He consented, with apparent despondency and reluctance, and I prepared for him a two months' course

of electrical medication. This had a beneficial effect, and a second course was ordered. Twelve months from the time I first saw him, he gave me an unexpected visit, so much changed in appearance that I did not recognize him. The pale, despondent invalid of a year ago, had become a stout, stalwart looking man, and his expressions of gratitude for what I had done for him, were of the most flattering character. This case and others of a similar nature, have convinced me that my original system of medication reaches and remedies the effects of mechanical injuries (when all other medicines have failed) as well as those arising from constitutional derangements, for the case I have cited was certainly hopelessly incurable under any ordinary system of medication, however skillful the practitioner.

Unless produced by contusion, as before remarked, chronic inflammation in the kidneys is generally produced by vascular derangements, and these derangements are most commonly the results of stimulating articles of food and drink, which inflame and vitiate the blood. The treatment necessary, therefore, is that which will restore the purity and tone of the vascular fluids.

Chronic Weakness in the Kidneys most generally occurs in persons possessing little nervous vitality, or a derangement in its circulation. It is attended with weakness in the lower part of the back, relaxed muscular system, and not unfrequently symptoms of approaching dropsy. In this difficulty, electricity, in some form, is necessary to exalt or regulate the nervous or electrical action in the organs. Medicines having no electrical property with which to impart nervous vitality, can be of little service. Persons most liable to this affection, are those who, in youth, have practiced masturbation, or in adult age, sexual excess, and what is commonly termed "withdrawing."

Consumption of the Kidneys is often met with in a large practice. It is attended with scanty urine loaded with albumen, and often with dropsy or swelling of the bowels and limbs, and sometimes with cough. Bright's disease (so-called from Dr. Bright, an English physician, who first described it), may be properly placed under this head, and so indeed may ulcerous, tubercular, and all affections tending to destroy either the cortical, tubulous, or papillous substance of the kidneys.

There can be no question that consumption of these organs results

from both nervous and vascular derangements; at least I treat the difficulty as if so induced, and with the most satisfactory results. Lack of proper nervous stimuli in the parts deadens them, or renders them inactive and prepares them for the intrusion of blood impurities; then commence those decomposing or ulcerating processes, which, unchecked, are so apt to lead to an early fatal termination. Hence the necessity of directing the treatment to the invigoration and purification of the nervous and vascular systems.

GRUB IN THE KIDNEYS is a disease which is invited by the same causes which produce grub in the liver (see page 153). Nature sometimes attempts to get rid of the vermin which intrudes itself into the system, by sending it off with the urinary secretions, and if the kidneys are not nourished by good pure blood, and stimulated with a good supply of nervous or electrical force, they are not in a condition to resist the lodgment of the minute infusoriæ, which make themselves as much at home as worms in an apple. The most usual symptoms of grub in the kidneys are, grumbling pain in the lower part of the back, offensive urine, mixed with more or less mucus, dropsical affections of the abdomen, legs, or feet, and, in some cases, accompanied with a discharge of some of the vermin with the urine. There is no treatment like electrical applications from the hands of a good operator, to destroy grub in the kidneys. A minute stroke of lightning, such as is hardly felt by the patient, is as certain death to those little creatures, as a thunderbolt is to the larger types of animals; electrical medication (see page 110), is a good substitute, but electrical applications to destroy the infusorial life, followed with nourishing medicines to enrich the blood, can hardly fail in the most desperate cases.

CHRONIC INFLAMMATION IN THE BLADDER is a disease resulting from vascular derangements. It is usually attended with more or less ulceration, and to learn how painful it is, one can form something of an idea by dipping a sore finger in urine. The secretions of the kidneys are of an acid nature, and are consequently as unfit to be deposited in an inflamed bladder, as vinegar is unsuited to come in contact with a sore mouth. When, then, inflammation exists, there is a smarting heat, pain or soreness in the lower part of the bowels, just above the pubes, where the bladder is located. Sometimes the disease is attended with swelling in this region, and extreme tenderness to the

touch. When the inflammation or ulceration exists at the neck of the bladder, no apparent discomfort is experienced until sufficient urine accumulates to rise to the level of the neck, when pain is at once felt with an irresistible desire to void urine. Contrary to the idea usually conveyed by anatomical illustrations of the bladder, the lower part drops a little below the line parallel with the outlet. We will suppose the annexed cut (fig. 37), to represent the bladder, with an ulcer or inflamed spot on the neck. The lower or depressed portion of the bladder is indicated by *a*; the ulcer, or inflamed part, by *b*. Now so long as the urine is below the line indicated by the dots *c*, little if any inconvenience is experienced. But just so soon as it reaches *b*, smarting pain immediately ensues, and sometimes the acridness of the fluid will produce such a sudden swelling of the part, that the water passage will become entirely closed, and the painful desire to urinate will only be aggravated by utter inability to do so. If this be not the case, and the water passes off without obstruction, the desire occurs as often as the urine reaches the point indicated by *b*. Little is voided at each time, but micturition is frequent and painful.

Fig. 37.

THE BLADDER.

When the neck of the bladder swells so as to obstruct the passage of the urine, the only mode of relief is the introduction of a hollow tube, called the catheter, through which the urine can escape, or a gum bougie, lubricated with a soothing ointment to allay the irritability. The latter process is preferable, when it will have the desired effect.

I have had several difficult cases of this kind, one of which particularly presents itself to my mind at this moment. A young lady placed herself under my care for the cure of several complications, one of which was chronic inflammation in the neck of the bladder, attended at times with ulceration. Her sufferings for months had been indescribable. She had been compelled to allow the urine to collect for three or four days, during the last forty-eight hours of which, on each occasion, she suffered more than the pangs of death. When she could endure her agonies no longer, and nature seemed indisposed to come to her rescue, the catheter had been employed by her attending physicians. Each of these operations had been attended with the discharge of nearly a gallon of urine. She had tried several medical celebrities in vain for even temporary relief. In undertaking

her case I avoided the catheter, and used the bougie, lubricated with my magnetic ointment (see page 383), in the early stages of the treatment, for drawing off the water, while I employed both electrical and medical agencies to remove the real cause of her trouble. It was but a little while before an electrical application would cause the urine to flow off freely, and as soon as the constitutional treatment had time to do part of its work, electrical applications were also abandoned, for nature promptly availed itself of the improvement to resume the performance of this function naturally. Perseverance in the use of electrical medication completed a radical cure.

PARALYSIS OF THE BLADDER is a disease which may render micturition difficult. The muscular fibers of the organ run in every direction, and when they are contracted the cavity is entirely obliterated. The healthful expulsion of the urine depends upon the pressure of these muscles, just as the discharge of the excrements depends on the compression of the abdominal muscles and the intestines. When, then, the muscles of the bladder are paralyzed, a complete and satisfactory discharge of the urine cannot take place.

At the neck of the bladder there is a set of muscles, called the sphincter, to close it, and retain the urine. If these, too, are paralyzed, then there will be a continual drizzling of urine, and incapacity on the part of the invalid to control the discharge. In children these muscles are sometimes weak, without being paralyzed, and the result is, that when asleep, and consequently not able to guard against it, a discharge of the urine takes place involuntarily. Accidents of this kind occasionally occur in adult age. In all these difficulties electricity, in some form, must be employed. Nothing, as yet, has been discovered capable of so energizing the muscular system, as this element. It is the only remedy for paralysis in any part of the system. If skillful applications of electricity directly to the parts cannot be obtained, then electrical medication should be adopted as a substitute.

GRAVEL is a name given to a disease which produces calcareous, earthy, or sandy deposits in the bladder. It is caused by an excess of calcareous or limey matter in the blood, and an insufficient supply of acid in the urine to hold these particles in solution. The disease is most common in limestone regions, or where the water used for

drinking purposes is hard. Scrofulous people are liable to this disease in any location, but manifestly more so where the water is hard or limey. Coffee is advised by many as a preventive against this painful disease, but, of course, this remedy is only admissible for those who are not rendered bilious by its use. "Dr. Mosley observes, in his 'Treatise on Coffee,' that the great use of the article in France is supposed to have abated the prevalence of the gravel. In the French colonies, where coffee is more used than in the English, as well as in Turkey, where it is the principal beverage, not only the gravel but the gout is scarcely known. Dr. Faur relates, as an extraordinary instance of the effect of coffee in gout, the case of Mr. Deverau, who was attacked with gout at the age of twenty-five, and had it severely until he was upward of fifty, with chalk stones in the joints of his hands and feet; but for four years preceding the time when the account of his case had been given to Dr. Faur to lay before the public, he had, by advice, used coffee, and had had no return of the gout afterward." Inasmuch as gout and chalky stones in the joints are difficulties known only to persons of a scrofulous diathesis, it is apparent that coffee is a remedy only in so far as it affects the scrofula favorably. Coffee is a partial antidote for scrofula when the temperament of the person favors its employment, and consequently, when scrofula is the *cause* of gravel, it may be beneficial to the patient to use it. But I am inclined to doubt its success as a remedy when employed alone. Electrical medication seems best adapted to the removal of those constitutional derangements which produce gravel. At least I find no difficulty in successfully treating those diseases by my process.

Chronic Gonorrhea or Gleet, as well as stricture of the urethra, are difficulties resulting from neglected or badly treated gonorrhea or syphilis, and constitutional derangements. The most common immediate cause of them, is the use of caustic in the attempt by allopathic practitioners to cure the primary disease. Their treatment of these chronic affections is almost entirely local, and, as a natural sequence, unsuccessful; for the real truth is, such difficulties never become chronic unless the vascular system is at fault. The primary disease may kill the patient, but depend upon it a chronic affection of the urethra cannot exist unless the blood was originally vitiated, or became poisonous by the contagion of the gonorrheal or syphilitic virus. Entertaining this view, I always administer constitutional as

well as local treatment, and my success is the best evidence I desire of the correctness of my position.

In any disease of the urino-genital organs, an invalid should not lose time in uncertain experiments with patent medicines and charlatans. Nor should he submit to painful surgical operations until he has fairly tested the best medical skill. No one affected with any of these diseases, who has been a faithful patient of mine, can say that a surgical operation became necessary. In closing this essay, I would refer all sufferers to chapter VI., of this part.

CHRONIC DISEASES OF THE FEMALE ORGANS OF GENERATION.

I WANT the attention and candid consideration of my female readers to what I have to say under this head. It will not do to pass over the subject of this essay as vulgar and too delicate for investigation. If it be pretended by any lady that she places no value whatever on the enjoyment which may be derived from the reasonable use of healthy procreative organs, she will not certainly be ashamed to admit that physical health is a blessing, and that disease, whether in the head, stomach, or the organs of generation, is an evil which she should employ her faculties of reason to avoid. If the subject is delicate, the complex sexual organization is also delicate, and a vast amount of human suffering, not only to ladies themselves, but to posterity, results from a foolish squeamishness on the part of many females, old and young, who shut their eyes upon every thing calculated to teach them how to preserve the strength and healthfulness of the organs peculiar to their sex.

It is said "Catherine Beecher goes from one village to another in New England and reports that there are no healthy women to be found within their limits, though the oldest inhabitant remembers one, his grandmother." Now there are reasons for this unhealthiness among females, and it will not extenuate the matter to say that while our grandmothers were apparently more healthy than women at the present day, they were quite as destitute of physiological knowledge. This may be true. But if the advance of civilization carries with it great blessings, it also drags in its trail pernicious evils, which science as well as religion must do much to avert. Our grandmothers were not so much the slaves of pernicious customs and fashions as those who are in future to become grandmothers, and consequently many pre-

cautions which are necessary to maintain health to-day, were not necessary in their day and generation. I do not wish to misimprove this opportunity to remark, however, that past generations of women are credited with having possessed more universal health than was actually the case. Only the *living* grandmothers are pointed to and quoted, while it is not borne in mind that many of their generation died even before they became mothers. Young unmarried ladies, and young mothers, have died in all ages of the world, a large number of whom might have been saved to become grandmothers, had they properly understood and regarded all the laws of life and health, or, what are frequently contemptuously termed "new-fangled notions" by those whose fast habits of living are as fully up to the customs of civilization as their ideas of physical preservation are far down in fossilization.

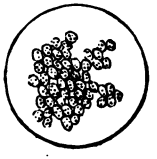
It is by no means a pleasing diversion to startle the public with the utterance of strange facts, and with opinions entirely at variance with those popularly entertained, nor in placing one's self in a position antagonistic with every body else, so as to stand like a target for the venomous arrows of envious contemporaries. But I have so little respect for error, modern or antiquated. I had rather my pen would rust in the inkstand than to use it in pandering to ridiculous fancies and propping up dogmas which, if not bolstered up by a rigid conservatism, would fall, through their own inherent rottenness. This book is not written to gloss over prevalent vices or to eulogize customs and views founded only on the whims and caprices of mankind, but to take a common-sense view of the subjects on which it treats.

Uterine diseases are becoming so common that ladies entirely exempt from them are more rarely to be met with than those who are suffering to a greater or less degree with them in some form. Nor do these difficulties affect women merely locally. So complex and delicate is the procreative system, and so intimately connected is it by the nervous ramifications with every organ in the body, it cannot be the seat of disease without affecting the general health. Even so natural a process as fetal formation in the uterus disturbs the health and comfort of nearly every woman who becomes pregnant. Particularly in the first stages of pregnancy, nausea at the stomach and other disagreeable symptoms are usually felt, while some females, through the whole period of gestation, have painful and others alarming symptoms. In the case of a woman of Lyle who had five children at one birth, during the last two months of her pregnancy, according to the state-

ment of the *Journal Des Annonces*, all objects before her eyes were several times repeated, but after her delivery her sight returned to its natural state. Now, if a lady is so liable to suffer, however slightly, when the womb is simply performing one of the functions it was made to perform, is it not self-evident to every person, that the presence of disease must produce incomparably greater suffering? I can, at least, truthfully affirm that, in a large majority of all my female patients, I have found more or less uterine disease; and, further, that it was the intermediate cause of whatever other difficulties existed. What I mean here by intermediate cause, is that which, following nervous and vascular derangements, produces, in turn, other physical ills. Let, then, common sense, rather than preconceived notions or popular prejudices, govern the minds of my female readers, while I proceed to treat of the most common chronic diseases which affect the female organs of procreation.

LEUCORRHŒA.—This disease, commonly called "Whites," is a prevalent distemper. It exhibits itself generally, at first, by the slight discharge of a thin, watery fluid from the vagina; but, in time, it becomes thick and changed in color. In advanced cases it may present a green, a yellow, a brown, or a florid appearance. But, often in one case, the discharge will change from time to time in its appearance, so as to present all the different phases described. The disease is usually accompanied with a great degree of lassitude, particularly in the morning, pain in the back and loins, and in many instances, smarting of the water as in gonorrhea. Indeed, in aggravated cases, it is often mistaken for the last-named disease, even by medical men.

Fig. 38.



As a general rule, leucorrhœa gives off a more abundant and irregular discharge than gonorrhea, and does not so much excite or inflame the pudenda, while disinclination to venery is apt to accompany the former, and an increased desire of this kind, the latter. Sometimes the microscope is employed to decide in questionable cases. An acrimonious leucorrhœal discharge, under this instrument, presents the appearance of decayed or vitiated mucus, as represented in figure 38; and gonorrhea, nearly the same, except that something resembling embryotic animalculæ seems to occupy a place in it, as represented in figure 39. I must say I have never been obliged to resort to the microscope, or even to a private examination of the pa-

tient, in determining between these two difficulties. When the question has arisen between the existence of gonorrhea or syphilis, I have found private or microscopical examinations indispensable in many cases.

Fig. 39.

Leucorrhœa, now and then, imparts excellent imitations of both gonorrhea and syphilis to husbands cohabiting with virtuous wives suffering with acrimonious discharges from the vagina. The effect in one case, may be an irritation in the urethra, and a discharge therefrom of purulent mucus, having a close resemblance to gonorrhea. If there be a slight abrasion of the glans-penis, the poisonous inoculation will produce a small pustule having many of the characteristics of chancre. This fact has been not only proved by actual experiments by surgeons of eminence, but my own observations sustain it. I have on several occasions been called upon by gentlemen suffering with such counterfeit affections, who were almost jealous enough to suspect their wives of infidelity. On the other hand, I have been consulted by ladies, who, on the first appearance of an acrimonious leucorrhœa, imagined that their husbands had been up to something not exactly consistent with matrimonial fidelity.

Under these circumstances a physician must possess good perception, and exercise a good deal of discrimination in deciding upon the real nature of the case presented, or he will often do great injustice to a suspected and innocent wife or husband. Great care should be taken to diagnose correctly, if for no other reason than that the successful treatment of a disease must necessarily depend upon knowing precisely what it is.

Leucorrhœa is a disease generally very prostrating in its effects. Now and then, ladies may be met with, who preserve all the bloom and exuberance of health, while a slight discharge of this kind is going daily on. But these are only rare exceptions to a general rule, for, in by far the greater number of cases the difficulty is attended with all the symptoms peculiar to it, and, in time, with those of a more distressing character. The constant drain, if not checked, leads to general uterine derangements, weakness and irritability of mind, palpitation of the heart, nervousness, hysteria, fainting, enfeebled muscular system, sunken and glassy eyes, paleness of lips, loss of appetite, difficult respiration and consumption. In dissecting a subject who has died of the effects of this distemper, the surface of the uterus presents a

pale, relaxed, and flabby appearance. Like seminal emissions in cases of males, leucorrhœa gradually undermines the constitution of females who are its victims, and, as if the fountains of vitality had been tapped, the very elements of life seem to be ebbing away.

The predisposing causes which produce leucorrhœa are vascular impurities and nervous derangements, and then there are exciting or immediate causes, the most common of which I will examine. (I may add here that all exciting causes,derange the nervous and vascular health, and that consequently there exists a reciprocal relation between predisposing and immediate causes.)

It is humiliating to say that masturbation among young ladies is a prolific cause. But the truth should be told for the benefit of those who, from ignorance of its consequences, are slaves to the vice, and nowhere can it be revealed so appropriately as in the pages of a medical work. Under sixteen or eighteen years of age, girls are not so much addicted to the pernicious habit as boys; but after that age, and until marriage, the rule is reversed. This anomaly can be accounted for. Rakish young men are always admitted to good society, while the appearance of wildness among young ladies awakens the bitter tongue of slander, which only the most modest and retiring demeanor on their part can silence, while defiance to it banishes them from all good society. Thus, the hot blood of budding man and womanhood, stimulated by exciting food, drinks, and condiments, leads the young man to the embraces of the harlot and the young woman to the vices of the secret chamber, so that the former sacrifices his moral sense, and the latter her physical bloom and health. True, the young man exposes himself to a fatal inoculation of venereal poison; but with all this risk, his vice, so far as the mental and bodily health is concerned, is the safer of the two.

Only recently I was consulted by a father concerning the poor health of his two daughters, aged respectively, twenty-two and twenty-four years. From the description of their cases they appeared to be physical wrecks, suffering with almost every complication that ever afflicted poor mortals. I saw by an analysis of their symptoms that, although nervous and vascular disturbances were the present causes of their complaints, self-abuse had induced these. I informed the father as to the nature of the present causes, but to spare the feelings of the young ladies, I dropped a private note to each of them, revealing the whole truth in regard to the terrible vice which was destroying them. With commendable frankness they re-

sponded to my letters, acknowledging the accusation, and informed me of their ignorance of its hurtfulness. They further stated that they had long been troubled with leucorrhœa, and that they were even disturbed with lascivious dreams, from which they were awakened in the highest state of amative excitement. Many similar cases have been presented to me for my opinion and medical aid, but never before any so hopeless as those I have just mentioned, for they were on the verge of insanity, and already affected with occasional mental hallucinations as terrible as those which attack the degraded inebriate.

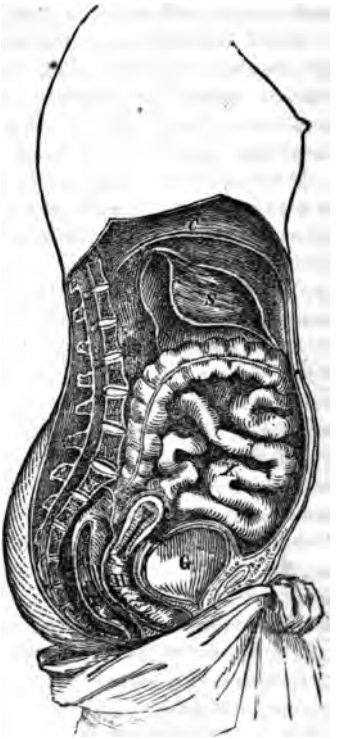
Sexual excesses among the married, bad habits for the prevention of offspring, cohabitation with uncongenial husbands, for whom no love is entertained, sedentary habits, retention of part of the menstrual blood in the folds of the vagina, are also among the immediate or exciting causes of leucorrhœa.

If proper regard were paid to cleanliness (excuse me, ladies, but it is so) there would be much less liability to this debilitating distemper. Every female who has arrived at the age of puberty should thoroughly syringe the vagina with pure water after the cessation of the flow of the menses each month. Within two days after the menses have ceased, there should be a general drenching of the walls of the vagina, so as to remove every particle of menstrual blood that may linger. "But, doctor, you would not thus advise unmarried ladies, would you?" Certainly I would, simply because it is necessary for the preservation of the health and cleanliness of the parts. Being a physician, I shall not feign ignorance of their anatomy or structure, nor shall I, as an inhabitant of this mundane sphere, where a great many funny customs and foolish notions exist, overlook the supposed evidence of virginity which young husbands in their own immaculate purity (?) usually expect to find in their newly made brides. Nor can I, in justice to my views, ignore the fact which my extended observation as a physician has presented, that many a young husband has been disappointed in finding such evidence, when his bride was as innocent as an infant, and she consequently, the victim of the most unjust and shameful suspicion.

It is a custom more in keeping with the drolleries and phantasms of the barbarians than with the common sense and scientific light of the nineteenth century, to esteem those only as virgins who have an unruptured hymen. The Lex Africanus describes one of the wedding customs of the Africans as follows: "After they were married, the bridegroom and bride were shut up in a chamber while the wedding

dinner was preparing, and an old woman stood by the door to receive from the bridegroom a sheet having the bloody tokens of the wife's virginity, which she showed in triumph to all the guests, and then they might feast with joy; but, then, if there was no blood to be seen, the disappointed guests went home sadly without their dinner." Now this custom, although revolting to people of intelligence, is excusable in heathens; but does it look well for those enjoying the light of civilization to so far imitate it as to require an unbroken hymen as an evidence of virginity? Physicians know it is a very fallible test of virginity; that the hymen is often ruptured by various accidents; that cutaneous eruptions near the labia many times exist of such an irritating nature that the hymen is broken by the incessant scratchings of the victim; that the hymen is often destroyed by surgical operations in childhood; that sneezing, coughing, violent straining, and any number of other causes may break it; that the test is in fact *no test at all*, and only subjects those who happen to have the hymen broken to unjust and cruel suspicions. It is only a few days since I was called upon to examine a little girl only seven years of age, whose hymen had been destroyed in consequence of an irritating eruption on the labia causing her to scratch and frictionize the parts even in her sleep, and I could mention many other instances coming under my observation in which the hymen had been destroyed by the same cause or by accident. Why, then, preserve the hymen? Why regard it as an evidence of virginity when such a test only excites mortification and a sense of disgrace in a large proportion of all young

Fig. 40.



NATURAL POSITION OF THE WOMB.
H, the vagina, and above it the uterus; G, the bladder; I, the rectum.

females, not a small number of whom have always been chaste and unexceptionable in their character? Besides, the mortification of a broken hymen only falls on those the most innocent, and such as have become the least acquainted with the vices of the world. The courtesan and mistress, and even respectable young women who have eaten of the fruit of knowledge, and trespassed against social statutes, know how to resort to deceptive means to throw off all suspicion when they are married. There are inventions gotten up for the express purpose of deceiving young husbands, and so well do they effect their object, that those gentlemen who actually know of their existence may be completely deceived by them. Even a physician may be hoodwinked by these artifices unless he ungallantly requires his bride to submit to an examination. Now, as a rule, those females who are "fast" enough to have carnal connection with a man, are also sharp enough to possess themselves of these devices, while only those who have been innocent of such wildness enter marriage so unsophisticated as to be ignorant of these things.

In asserting that the hymen is a cruel and unreliable test of virginity, I do not stand alone. Every intelligent physician, particularly in extensive practice, knows the fact, if deference to popular prejudice leads him to conceal it. But many have freely proclaimed it. Pancoast states—"The presence of the hymen was formerly considered a certain test for virginity, on account of its being ruptured during coition. This idea has long since been repudiated, for it is not unfrequently lost through accident, disease, etc. In many instances it does not give way in the first or subsequent connections and pregnancy. In such cases the spermatozoa of the male work themselves through the opening of the hymen, and finally pass up through the vagina, uterus, and into the Fallopian tubes, where impregnation occurs. Therefore, medical writers no longer regard the presence of the hymen a proof of chastity or its absence a proof of immorality."

Dr. Ferguson says—"The sides of the vagina are in contact ordinarily, but it is capable of enormous distention and of again returning to its natural size. The opening is closed by a fold of the mucous membrane which is called the hymen. This membrane is easily ruptured, or it may become so relaxed as scarcely to be perceptible, *which will account for its rarity in adults.* From very early times it has been made the test of virginity, its absence being considered conclusive proof of sexual intercourse having taken place. Modern investigations have proved not only that it may be destroyed by many causes,

unconnected with sexual indulgence, but that intercourse may take place, followed by pregnancy, without its destruction. *It is, therefore, of no value as a test.*"

Dr. Parr states—"The hymen naturally shrinks with years, or is torn by straining, and often disappears at an early age. *It can therefore be no proof of virginity.*"

Dr. Wilson remarks, that "the hymen *must not be considered a necessary accompaniment of virginity*, for its existence is very uncertain. When present, it assumes a variety of appearances; it may be a membranous fringe with a round opening in the centre; or a semilunar fold leaving an opening in front, or a transverse septum leaving an opening both in front and behind; or a vertical, bored with an opening on either side."

The natural purpose of the hymen is to protect from colds and exposures the sensitive sexual organization of the female before the age of puberty, for until this is sufficiently developed to perform the menstrual function it is extremely delicate. The provisions of nature are admirably calculated to arouse in the minds of intelligent beings veneration for the beneficent Creator whose handiworks are exhibited on every side. The "leaves of the common chickweed approach each other in pairs, so as to include within their upper surfaces the tender rudiments of the young shoot." The bud of every flower is so enveloped as to protect its delicate internal structure till maturity, when it bursts forth with its fresh beauty and imparts delightful fragrance to every passing zephyr. Nuts of every variety are provided with an outer burr or shuck to protect them in their embryotic state, and by the time the autumnal frosts come, the shell which contains the meat becomes strong enough without protection, so that the outer one can be dispensed with.

It is difficult to tell how much the hymen may have to do in shielding the procreative organs of females from exposure and disease, during the early period of their development. It is only known that young girls who, through any accident, have lost this protecting membrane, are more liable to uterine affections. But the age of puberty, indicated by the appearance of the menses, is one in which the hymen may be altogether dispensed with; for whether accident or marriage happens to the young female within six days or six years after the appearance of the menses, it is certain her reproductive organs are fully matured, and that the hymen has fully subserved the purpose for which it was made. In some cases the hymen proves so great an ob-

stacle to the flow of the menses that the whole vaginal canal becomes blocked up, when hysteria and other spasmodic affections ensue. Under such circumstances it must necessarily be ruptured, and, when very strong, with the knife of the surgeon. When the hymen remains unbroken until after marriage, it occasionally occurs that it has become so cartilaginous by age that the vagina cannot be entered, in which case the unfortunate bride is obliged to submit to a surgical operation for its removal. Now if this membrane was not so carefully protected and valued, such annoyances as these would be avoided, while the hundreds and thousands who have, by accident, ruptured it, would not be the objects of crushing suspicion on the part of those who possess so little anatomical knowledge that they are not aware such accidents ever happen. The commencement of menstruation marks a new era in the life of a female. She becomes more graceful in her manners; her face changes; her breasts rapidly develop; she loses her childish airs and becomes more attractive and womanly. It is then that she should be treated as a woman, not only socially, but hygienically and medically.

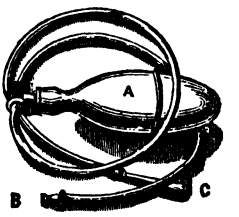
The menstrual blood was supposed by the ancient Jews and the medical men of Arabia, to possess peculiar malignant properties, and in some countries the laws and customs required that females should be cloistered during the menstrual periods. In Isaiah xxx. 22, the writer speaks of the defilement of graven images, which shall be cast away as a menstruous cloth, and in Ezekiel xviii. 6, and xxxvi. 17, allusions of the same import are made. "It was formerly supposed, and so stated by *Pliny* and others, that the menstrual blood contained principles of a noxious and poisonous character. Pliny informs us 'that the presence of a menstrual woman turns wine sour, causes trees to shed their fruit, parches up their young fruit, and makes them forever barren; dims the splendor of mirrors and the polish of ivory, turns the edge of sharpened iron, converts brass into rust, and is the cause of canine rabies.'"

While I have no respect for antiquated notions, unless sustained by reason and philosophy, I am disposed to agree with these ancient views so far as this: that the menstrual blood becomes acrimonious, if it is permitted to remain and decompose in the folds of the female vagina, and that leucorrhœa and ulceration of the vagina or womb are often the result of the excoriating properties developed by particles retained in the vagina, and particularly in that of young females, whose hymens have not been ruptured. My observation fully sustains these conclusions, but I do not think the menstrual blood malig-

nant or injurious, if the lady takes care that the vaginal cavity is cleared of all relics of the fluid.

Mankind entertain a thousand whims, and I am not disposed in this work to meddle with any which do not interfere with cleanliness and good health; but I consider it my prerogative to attack those which do interfere with physical development, and the comfort and health of the human race; and I cannot but regard that one which leads a young husband to suspiciously and sneakingly seek to know if his young bride has an unruptured hymen, as humiliating and degrading to all the nobler attributes of a moral and intellectual being. My advice therefore is, that single females, as well as married, should keep the vagina cleansed of every decomposing particle of menstrual blood, and that the female syringe should be thoroughly used within twenty-four hours after the menses have ceased. The more efficient the instrument used the better. In fact, the common glass and metallic syringes are little better than none. The various patterns of India-rubber syringes are the best, because they can throw such a volume of water, and that too, with so much force, that every particle of decomposing blood can be washed away. The annexed cut represents the best article of the kind, considering its simplicity and little liability to get out of order (see page 381.)

Fig. 41.



RUBBER SYRINGE.

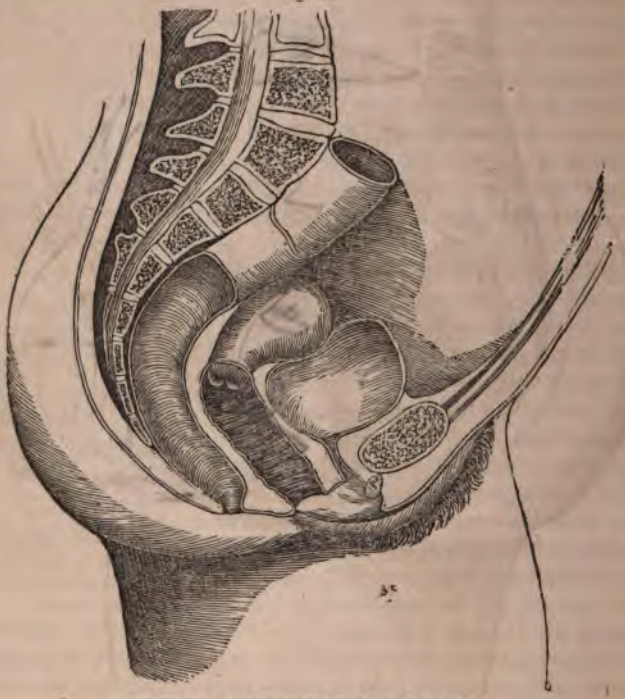
By compressing the oblong rubber ball, A, the water is drawn in at B, and expelled at C.

Young unmarried ladies, of course, value (or at least should) as of first and paramount importance in the regulation of their customs and habits, the advice of intelligent and Christian mothers. I would not urge upon them the use of the syringe at the end of each monthly period without the consent of their maternal guardians. But may I not hope that sensible mothers who watch with anxious eye the first symptoms of disease and decline in daughters just blooming into womanhood, will take a practical view of the hints I have given, and advise them to regard more scrupulously the requisites of health than the morbid and foolish notions of sensual mankind! As for married ladies, there is no possible excuse for their non-observance of the most rigid rules for the maintenance of cleanliness. They should use the female syringe very thoroughly at the end of each catamenial flow.

The use of astringent injections is the most popular mode of

treating leucorrhœa, but however much relief may be obtained in this way, it is usually of the most temporary nature, unless accompanied with such medicaments as will improve the general health and impart vitality to the whole procreative system. A bad case of leucorrhœa is of quite too threatening a nature to trifle with; and in its incipient stages, it had much better receive skillful treatment, for it is liable at any time to assume a troublesome and prostrating form, which may end in premature decline.

Fig. 42.

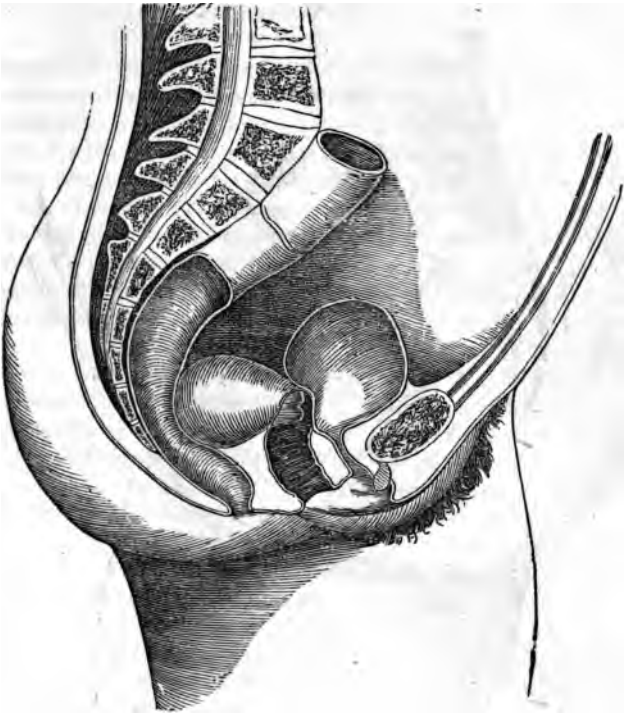


THE WOMB FALLEN FORWARD ON THE BLADDER.

FALLING OF THE WOMB. Here I have to consider another very common affection of the female organs of generation. When the abdominal muscles, or those of the womb itself, become relaxed by insufficient nervous stimuli; when the vagina becomes weak through the effects of a debilitating leucorrhœa, so that it fails to do its part in

sustaining in its place the organ suspended within its walls; when a pernicious fashion induces a lady of not very strong muscles to compress her waist so as to press down the stomach and bowels below their normal position; or when a pregnant female, bent on expelling from the uterus the embryo of a human being, resorts to some means to effect abortion, the advent of that distressing disease usually termed "prolapsus uteri" may very reasonably be looked for. Although most

Fig. 43.



THE WOMB FALLEN BACKWARD AGAINST THE RECTUM.

common to married ladies, single females are not exempt from it. If correct statistics of the prevalence of this disease could be presented, they would astonish the reader.

The womb usually falls either forward or backward. If forward, as represented in Fig. 42, the top of the uterus rests upon the bladder, caus-

ing frequent desire for micturition. (In this illustration, *a* represents the womb, *b*, the bladder, and *c*, the rectum, or back passage.) If it falls backward, as represented in Fig. 43, it is apt to interfere with the free expulsion of the feces by its pressure on the rectum, predisposing the invalid to constipation; and if, as is sometimes the case, in this unnatural position, the womb presses against the neck of the bladder o urethra, micturition becomes difficult, and at times painful. This may also be the case when the womb has fallen forward, if the muscular relaxation is so great as to drop the womb below the upper or main part of the bladder.

The womb may tip in any direction, but the kinds of prolapsus described are the most common. Occasionally a case is met with of introversion. When this disease occurs, the organ is often found to protrude from the vagina, and the sufferings of the invalid are intense.

The general symptoms of falling of the womb are, dragging or bearing down sensations in the lower part of the abdomen, pain and numbness in the limbs, weakness in the loins and lower part of the back. Leucorrhœa generally precedes it, and is in nearly all cases its constant companion. Existence to ladies thus afflicted is a burden, and married life a curse rather than a blessing. Unless relieved or cured, months and years of misery, according to the endurance of the sufferer, are fastened upon her, until consumption or some other disease, in a fatal form, forever relieves her of her physical distress.

In the incipient stages of the disease, the exercise of walking is necessary to keep up what is left of the muscular strength; but in advanced stages this exercise is generally too painful to be endured, and in such cases frequent manipulations of the abdomen with the hand should be resorted to

To cure prolapsus, various utero-abdominal (should read abominable) supporters or pessaries have been invented, more for the purpose of making money than doing good. These mechanical means are irritating to the womb and vagina, which are so delicately organized and permeated with sensitive nerves, that constant contact with any wood, glass, earthen, or metallic contrivance used to support the parts, can only give temporary relief and ultimate injury in most cases, while instances do occur in which the first effects are so irritating and distressing that the patient dies from inflammation induced thereby. These worse than senseless things should be dispensed with entirely, and the disease treated locally and constitutionally, as the common sense of the skillful physician naturally suggests.

Ulceration of the Womb is common to ladies of a scrofulous diathesis; a venereal taint in the system will also produce the disease. The neck of the uterus is its most common location, and it is attended with offensive discharges from the vagina, and much burning heat and pain in the region of the abdomen. Aside from its debilitating, painful and offensive effects, it is apt to lead to cancer of the womb, a distressing disease, which is generally difficult of cure, particularly in its advanced stages. Ulceration may be easily eradicated, and I have cured many cases of cancer of the womb in its incipient stages. When either ulceration or cancer affect the vagina or womb, the acrimonious nature of the purulent secretions are such as to impart disease to the organs of the male in copulation, unless the Membraneous Envelope is used.

Polypus of the Womb.—This is a tumorous affection characterized by the growth of fleshy fungus, which often attains great size. This disease seldom occurs, except in cases which are affected more or less with scrofula. In such cases, often more than one tumor presents itself, some of which are hard and firm in their fibres, and others soft and spongy. Females affected with this difficulty are often suspected of pregnancy. I was once called upon by a lady affected with polypus of the womb, who had been pronounced pregnant by several physicians, some of whom had made private examinations. Had her disease been permitted to run on until a period when time would have disclosed the mistake, she might have become hopelessly incurable. A thorough examination satisfied me at once as to the nature of her disease, and I was enabled to prescribe remedies appropriate thereto.

Dropsy of the Womb.—This is a uterine disease which is not so common as the ones I have previously considered. Occasionally, cases are met with in a large practice, and in mine, I have found it quite as prevalent as other dropsical affections. This disease often leads to the suspicion that the invalid is pregnant, and sometimes physicians who ought to discriminate more correctly, are deceived by it. It was owing to the palpable ignorance of those who were considered the first physicians of England, that Lady Flora Hastings, a maid of honor to Queen Victoria, was driven in disgrace from the court. She was supposed to be *enceinte*, and being a single lady, for her to become a mother would have had a most prejudicial effect upon the character of the court. The most notable matrons and

physicians were summoned to make an examination, and their decision was confirmatory of the terrible suspicion. The broken-hearted lady soon afterward died of dropsy of the womb, which had deceived her medical examiners. Greater medical stupidity cannot be conceived of! Had her physicians possessed the skill which they should have possessed, to wisely discharge the responsible duties of their position, the disease of the lady would have been readily detected, and her life and reputation saved. In both polypus and dropsy of the womb, the delicacy of ladies to submit to private examinations and the destitution of diagnostic skill in the medical profession, lead to some mischievous blunders. Although I seldom find it necessary to resort to such examinations, to decide as to the true nature of the disease, cases occasionally occur in which such examinations are necessary; and when necessary, the good sense of the patient should overcome all feelings of delicacy. I had opportunity once, to admire the courage and good sense of a very respectable and modest young lady of sixteen or seventeen, who had cancer on the labia, which was so far advanced as to require local treatment. Although she possessed all the modesty and refinement common to the well-bred of her sex, she submitted without objection, and with commendable heroism, two or three times a week to the necessary topical treatment; and I am fully convinced that my success in treating her case, was greatly owing to the freedom which enabled me to give the disease the attention it required. Had she been more prudish than sensible, there can be no doubt that her distressing affection would have proved fatal.

When ladies suffering with uterine difficulties apply to a physician, they must bear in mind that there is no part of their system with which he is not thoroughly familiar.

Chronic Inflammation of the Womb.—When, succeeding childbirth, abortion, contusion, or other cause, acute inflammation ensues, if not properly treated by the medical attendant, either death, or chronic inflammation of that organ, is the result. The chronic form of the disease is characterized by soreness in the region of the uterus, great pain in cohabitation, nervousness, fretfulness, and, in many cases, pains in the breast. Sometimes the uterus will enlarge and the courses become irregular, scanty, or profuse. The inflamed and swollen uterus may press upon the bladder so as to interfere, more or less, with the urinary organs. This disease may be aggravated by hot and stimulating foods, condiments, violent exercise, and grief. Local treatment,

alone, cannot cure chronic inflammation of the womb, for in all cases of this kind, there are constitutional disturbances which must be removed.

NYMPHOMANIA.—This is a name given to a disease not unfrequently occurring among females of both high and humble life, and which is characterized by a violent desire for coition. Hooper describes it as "a species of madness, or a high degree of hysterics. Its presence is known by the wanton behavior of the patient; she speaks and acts with unrestrained obscenity, and, as the disorder increases, she scolds, cries, and laughs, by turns. While reason is retained she is silent, and seems melancholy, but her eyes discover an unusual wantonness. The symptoms are better or worse until the greatest degree of the disorder approaches, and then, by every word and action, her condition is too manifest." The cause of this singular difficulty is altogether attributed by medical writers to a local irritability of the procreative organs. I cannot acquiesce fully in this explanation. That nervous irritability, or rather, that too much nervous or electrical stimulus is present in these organs there can be no doubt; but an inharmonious distribution of the nervous forces among the organs of the brain manifestly precedes or co-operates with the former condition. It is a fact that ought to be well understood, that the nervous forces, sometimes, in consequence of some violation of nature's laws, are withdrawn, or partially so, from one or more organs, and the excess given to another, so that, while one or more may be deprived, or nearly so, of their vitalizing or stimulating presence, the recipient of the excess is excited to an unusual degree. Thus one or more of the organs of the brain may become abnormally excited at the expense of inactivity to the rest, so that a person will be fanatical on some one subject and think and talk of little else. In brief, he has a "hobby." In consequence of this mental inharmony, growing out of an unequal distribution of the nervous forces among the organs of the brain, we often meet with crazy poets, fanatical religionists, mad politicians, luny inventors, harum-scarum doctors, etc., etc. Now, when the causes of these peculiar conditions of mind are understood, according to my explanation, is it not easy to see how an excess of nervous force may be sent to the organ of amativeness, at the expense of other organs of the brain? If the reasoning and moral organs are robbed to supply this excess, how natural that a lady who may have previously sustained a spotless character for modesty and reserve, should, with such an abnormal condi-

tion of the mental faculties, exhibit uncontrollable emotions in the presence of gentlemen. The intellectual organs are almost paralyzed, and the nervous or electrical stimulus which should give them activity is expended upon amativeness; and this organ, very naturally, expends its excess upon the nerves centering in the sexual or procreative system, of which it is the head and director.

Females laboring under nymphomania deserve rather the sympathy than the condemnation of friends. It is a species of monomania, and as such should shield its victim from unjust and uncharitable aspersions.

When the blood is diseased and nymphomania exists, inflammation, irritation, and sometimes ulceration, locate about the pudenda, vagina, and uterus, rendering the parts sore and extremely tender. But this condition of the organs is not sufficient to deter the female from the act of coition if the opportunity offers. A very respectable married lady, afflicted with this malady, whose desire for coition was incessant, in describing her symptoms to me in a letter, said—"In describing myself, I cannot think of any better way of expressing myself than to say it feels good to be hurt." This quaint and frank statement conveys the idea exactly, for the nervous excitability of the organs of amativeness and the sexual parts, demands gratification, however sensitive the latter may become by the presence of ulcerous or inflammatory diseases.

My mode of treating nymphomania without complications, is such administrations of electricity as are calculated to equalize the nervous circulation, and draw off the excess from the organ of amativeness and the sexual parts. In complications growing out of blood impurities, the treatment must combine both electrical and blood-purifying remedies. My theory of the disease is original, as is also my mode of treating it, but my success in its management convinces me that both are correct.

ANTHROPOPHOBIA AND SEXUAL APATHY.—These are the very antipodes of nymphomania. The first causes repugnance to, or dread of coition; and the other, a perfect disinclination for the act. These are much more prevalent diseases than nymphomania. I term them diseases because they are manifestly entitled to this classification. All perfectly formed females, if their organs of amativeness are properly active, and their sexual organs in a normal condition, are susceptible to amative desires and emotions, and pleasurable sexual

excitation. Inasmuch as the size of the organ of amativeness varies in different females, of course this susceptibility varies in a corresponding degree; but when repugnance or total indifference exists, one of the faculties which God designedly implanted in women, is paralyzed, as much as the arm is paralyzed if it is deprived of sensation and motion.

It is not, however, my design to treat of these diseases here. I choose to reserve a further consideration of them to an essay in chapter VIII., part II., to which the interested reader is referred. I merely desire to name them in this connection, because I regard sexual repugnance and indifference as diseases of so prevalent a nature as to deserve mention in this essay on chronic diseases of the female organs of procreation.

The consideration of ovarian diseases might appropriately find place in this essay, but as the same ground will have to be passed over, under the head of Barrenness, space will be saved by omitting the matter here.

Treatment of Diseases of the Female Organs of Procreation.—More or less has already been said under each head, of the treatment best adapted to them. All, leucorrhœa, falling of the womb, ulceration of the womb, polypus of the womb, and chronic inflammation of the womb, need constitutional as well as local treatment. Nymphomania, anthropophobia, sexual apathy, ovarian diseases, immoderate flowing of the menses, suppression of the menses, and other difficulties involving these organs, also require treatment no less thorough. Whatever benefit may be derived from simply local treatment, can only prove temporary, as all must be satisfied who have resorted to medical men pursuing this plan of treatment alone. In my practice, I have generally found myself able to permanently cure them; in cases not curable, I have had the happiest success in giving relief. The reason for this is, that I first satisfy my mind regarding constitutional *cause* or *causes*, and treat that or them, at the same time I am treating effects, or in other words, local difficulties. What I have in various parts of this essay denominated immediate, intermediate, exciting or provoking causes of uterine disease, may be properly termed sub-causes. The vascular or nervous system, or both of these systems, must have been antecedently diseased or impaired, to allow the sub-causes to which I have alluded, to fasten chronic affections upon these organs, unless they were directly caused by mechanical injuries or venereal

contagion; and even in these cases, the blood and nervous system become involved and react upon the local diseases, so that perfect recovery in all cases depends upon the comprehensive treatment I have named.

Electricity, properly applied or administered, has remarkable curative powers in all cases of uterine affections, and since the invention of my Magnetic-stool, I believe the most hopeless cases can usually be cured. No future invention in this age of ingenuity, it seems to me, can be better adapted to the treatment of female complaints, for it enables the operator to give the most thorough application without the least discomfort to, or indelicate exposure of, the patient's person. Indeed, it carries the gentle electrical current to the parts most affected, without any direct agency of the physician, nor does any thing which has been used by one patient come in personal contact with another, except such parts as can be seen to have passed through the hands of a laundress, thus rendering the operation comfortable, free from embarrassment on the part of the patient, and what is still more important, free from the possibility of imparting to one the poisonous infection of another. In those cases which can be placed under my personal treatment, the applications of electricity through my Magnetic-stool, will prove a valuable auxiliary. Those suffering with uterine difficulties, who reside at a distance and cannot visit me, are referred to pages 110 and 238.

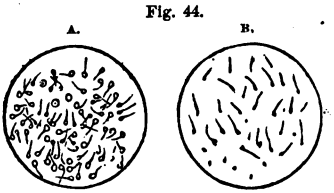
BARRENNESS.

This word designates a physical condition abhorrent to every one who is not already a parent. Whether love of children is limited or universal, the idea of being barren, is one from which every individual who has been long married, and has not, at least, one child to enliven the family circle, instinctively recoils. Such a condition has in all nature but one parallel, and that the great desert which spreads its vast expanse wearisomely before the eye, without a blade of grass, leaf, twig, or tree to nod a welcome to the passing breeze, nor the first crystal of water to reflect in prismatic colors the golden rays of the sun. With many females, the grave is more cheerfully looked forward to than childless longevity, and not a few husbands would rather die in the prime of manhood, leaving an heir, than to live to gray old age and be esteemed incapable of reproduction. The careless world cannot know the secret yearnings of the hearts of such unfortunate persons so well as the physician; nor is the family doctor so liable to

find them out as one engaged in a national practice, like myself. A majority of childless married people will strive to make their neighbors think they cannot endure children, while the physician in whom they have confidence, living ten, twenty, or a thousand miles off, is intrusted with the secret of their hearts' desire. Now, I am betraying the confidence of no one in making these general remarks. I never breathe the professional secrets intrusted to my keeping, nor would I make these general allusions to them, except for the fact that those of my readers with a houseful of babies might feel surprised to find space, however limited, devoted to the subject of barrenness.

A lady who has had four or five children, generally wishes herself barren, feeling that she has done her share toward populating the world, and she is entirely unfitted by her fruitfulness, to sympathize with one, who, loving children, has none of her own to love. But, taking a serious view of the matter, however badly children may sometimes turn out, childless old age is a dismal future for the mind to dwell upon, and, having reached it, the present is no less cheerless. The hearthstone of a married pair, in the vigor of life, is electrified with the presence of the bright roguish eyes which mischievously watch the smiles and frowns of approving and reproving papas and mammas, while no vernacular is so enchanting as the hesitating and rambling utterances of "our baby" when it first begins to kill the king's English. The new father seems more dignified, and stands several inches higher in his stockings, while the mother is never tired of relating the extraordinary feats and accomplishments, or quoting the wise remarks of her prodigy. Passing the meridian of life, doting parents watch with pride the developing genius of a promising son, or the unfolding brilliancy, beauty, or goodness of a favorite daughter, while the infirmities of old age are deprived of their depressing influences by the affectionate attentions of grateful children. Therefore the desire for children is natural, and all honorable means to obtain them excusable. A lady who is devotedly attached to them cannot imagine how far she might go in her attempts to become a mother, unless placed right in the position of one who has spent many years of married life without a sign of pregnancy.

Fig. 44.



A, Microscopic view of healthy spermatozoa.

B. Microscopic view of sickly and inanimate spermatozoa found in the seminal fluids of a barren man.

Nor can a man picture to himself the mortification one feels who passes years in the state of matrimony without becoming a father, unless he has himself been in that position. Then, too, the organ of philoprogenitiveness is often large in the male as well as in the female brain, thus adding an additional incentive to second every effort of the wife to overcome unfruitfulness.

Barrenness is not always peculiar to females, as many suppose. Wives are often considered barren by their husbands and friends when all they require for fecundation, is the introduction in the vagina or womb, of a healthy spermatozoon, or, in other words, one of the animalculæ found to exist in the healthy male semen, possessing vitality enough to impregnate the ovum or egg of the female. (See A, figure 44.) A husband may be to all external appearances healthy, and his procreative organs may seem perfectly sound, and capable of yielding sexual gratification to both himself and wife, but if the seminal fluid which he deposits in the vagina is destitute of spermatozoa, or if the latter are feeble and almost lifeless, as represented in B, figure 44, then, in reality, he is barren. Feeble spermatozoa have not the requisite animation to ascend the cavity of the womb or fallopian tubes, or, having done so, they have not the strength to penetrate the egg. The idea is popularly entertained that if the husband has the ability to perform the copulative act, and no issue results therefrom, the wife is, without question, barren. But it is only necessary to look at the illustrations referred to, which are the results of careful microscopical examinations, to be convinced that such a notion is erroneous, and does injustice to many a female whose procreative organs are perfect in their formation and healthy in their condition. Besides the evidences revealed by the microscope, childless widowers have been known to marry the second or third time and still die without ever having become fathers, while one of their wives, and possibly each of them, has been the mother of children by a former husband or became so by a subsequent marriage.

It is undeniable that barrenness is more often the fault of the wife than of the husband. There is probably no *good* reason why this should be so, except the fact that attention to domestic duties renders the faithful housewife more sedentary in her habits. There are several bad or avoidable reasons, principal among which is her slavery to pernicious customs. I have said so much concerning this matter in various portions of this book, it is unnecessary for me to more than allude to it here.

Not by any means one of the least of avoidable causes is the way in which the young girl grows up, without learning any thing of the care necessary to be bestowed upon her sexual organs, except what she stumbles into or learns accidentally. The dawn of puberty is an important epoch in the life of the young female, and at this time she needs advice which only the intelligent mother, or the physician, can give; but how seldom, very seldom, she receives it! All inattention to the natural functions, or a local derangement of the procreative organs, has a tendency to induce nervous and vascular derangements, and these, in turn, fasten the local difficulty more permanently upon the victim.

Some young ladies grow up in such abject ignorance of themselves that they are frightened when their menses appear, and resort to all manner of expedients to arrest the natural flow of the menstrual discharge. I have had cases of uterine diseases in advanced womanhood under my care, whose ill-health was induced by such ignorance and folly in girlhood. When the flow is allowed to go on without interruption, proper attention is not given to cleanliness after each period, as already explained in my remarks on leucorrhœa.

Under such circumstances it is not strange that the procreative organs of the female are more often diseased than those of the male, and that barrenness oftener exists in the wife than in the husband.

The most common immediate cause of barrenness in the female is a diseased condition of the ovaries where the eggs or ova are produced. There are a great many names given to the various forms of disease these organs are subject to, but they may be briefly summed up as inflammatory, ulcerous, cancerous, tumorous, dropsical, or paralytic in their character.

Fig. 45 represents an ovarian affection not unfrequently met with. The letters *b* represent a variety of cysts and abnormal formations of the ova or eggs. In this affection the whole organ becomes distended and often painful, while the regularity of the menses is generally in some measure interfered with. A female afflicted with an ovarian disease of this character may be compared to a tree that puts forth sickly blossoms, followed with fungus or blasted imitations of fruit, which fall to the ground without ever reaching maturity. Many of my readers have doubtless seen just such trees, which, however beautiful to look upon, produce nothing but withered, fibrous, shapeless fungi, which could hardly be called imitations of fruit. Well, now, the ova produced by an ovary in the situation of that represented by Fig.

45, contain none of those elements of vitality which will enable them by combination with the spermatozoa to form the embryos of human beings. Contrast this picture with Fig. 46, and the non-professional reader can readily appreciate the difference in the appearance of a diseased and a healthy ovary. In the latter the dark spots similar to the one marked *a*, represent the forming ova or eggs, and the light spots with dark centers, like the one near *b*, the follicles which have discharged the matured ova.

Perhaps a more common affection of the ovaries than that just considered is partial paralysis. The ovaries may become partially paralyzed, as well as any other organs of the body, and the absence of nervous stimuli renders them inactive in the performance of their functions. In such cases these organs are not a little unlike those of elderly females who have passed the age for child-bearing, as represented in Fig. 47. Such persons appear to enjoy good health, and really do not feel any discomfort in the region of the ovaries.

Fig. 45.

DISEASED OVARY.

Leucorrhœa and ulceration of the womb are often immediate causes of barrenness in females. If the secretions of the vagina or the discharges from the ulcerations of the womb are of a very acrimonious character, the spermatozoa of the male, in their ascent toward the fallopian tubes, might as well encounter the poisonous secretions of the Upas tree as those deadly fluids emanating from organs which, in health, extend a hospitable welcome to them.

Barrenness in females may be caused by the fallopian tubes having become glued to the ovaries. It may be produced by suppression of the menses; by the induration or relaxation of the neck of the uterus; by a want of erectile or contractile power of the procreative organs of the female as described in my essay on Impotency; by too great similarity in the temperaments of the husband and wife; by too great amative excitability at the time of coition, in consequence of which the violent movements of the fallopian tubes rupture the egg or ovum, or an excess of reciprocal magnetism destroys the vitality of

the male and female germs. Barrenness arising from the last-named cause is what suggested to my mind the electro-magnetic preventive machine, as described in my essay on the prevention of conception.

There are some congenital malformations of the female organs of generation which occasionally produce barrenness, but these are rare; and inasmuch as they are incurable, it is hardly worth while to spend time and space in treating of them. All the immediate causes I have thus far mentioned are generally curable under skillful treatment, and, although it is not easy to give the symptoms which attend each phase, so that a person affected with barrenness can determine for him or herself the actual cause, a personal examination of both husband and wife will enable the skillful physician who has given much attention to this department of practice, to determine; and, usually, answers to questions on page 238, from both parties, will give me the necessary information to arrive at a correct diagnosis.

Fig. 46.

THE OVARY IN HEALTH.

Barrenness invariably requires electricity in some form, as an adjunctive remedy to completely rectify the difficulty. Such treatment as I refer to on page 110 is well adapted to its cure. At least one case has occurred under my treatment by electrical medication, in which a lady, quite *advanced in life*, under my care for other complaints, and who was considered hopelessly barren, became *enceinte*. She had considered herself in this respect past all help, and only wanted to obtain a comfortable degree of health, but no sooner did her system become perfectly free from disease by the use of my electrical medication, than conception took place. She was quite indignant with me when I told her the new symptoms she described were indicative of gestation, for she thought it impossible; nor could she credit my diagnosis until the fetus gave pretty convincing proofs of its existence by the occasional exercise of its muscles. I have been remarkably successful with my system of treatment in cases of younger females and those in the prime of life. Occasional cases will occur in which applications of electricity, passing the currents through the complete apparatus which I have invented, are necessary. There can

be nothing more complete, it seems to me, for the treatment of such difficulties than my magnetic-stool. The organs most at fault are reached in a manner not uncomfortable or disagreeable to the most nervous or modest.

Obstinate barrenness in males, is more difficult of cure, and sometimes baffles the skill of the physician. Strange as it may appear, the artificial injection of healthy male semen into the vagina has been resorted to by resolute and determined, but virtuous wives, in their childless despair. Some physiologists claim that the spermatozoa of the male will retain their vigor and impregnating power if put in warm water and injected with a syringe; but no successful experiment is adduced to sustain the hypothesis. Still, there are means by which the artificial injection of healthy male spermatic fluids may be made so as to induce impregnation. Electricity, however, properly applied, will cure many a case of male barrenness, which ordinary systems of medication have failed to favorably affect. No married pair should despair of having children until skillful electrical medication has been tried, but skillful electrical applications will often cure when the former fails. Too much care to protect the embryo cannot be taken by a lady who, after years of fruitless marriage, becomes *enceinte*. Such a person is much more liable to miscarry, and miscarriages are apt to render a predisposition to barrenness more confirmed. I have had ladies under my care, who, after having by patient perseverance in my treatment, attained the condition so long sought for, failed to reach the full realization of their hopes by falls, frights, excessive fatigues, or some cause of like nature, and I have found it quite impossible, in some cases, to restore the tone of the reproductive organs so that pregnancy would again take place.

Before concluding this essay, I have a word to say to the jealous husband who is, or may become, the father of an only child after years of unproductive married life, followed, after the birth of one child, with years no less sterile. In some cases, the causes producing barrenness are temporarily removed, even when husband and wife have been pursuing no medical treatment for that purpose. A barren wife may, under an unusual, and only temporarily improved condition of the procreative organs, develop a perfect egg, which may be impregnated and become a healthy fetus; or a barren husband under a temporarily improved condition of his genital organs, may give to the wife a healthy spermatozoon with like result, but subsequent sterility ought not to lead the husband to suspect the fidelity of his wife, because the reproduc-

tive organs of either sex are as liable to sudden and temporary convalescence when abnormal, as any other organ in the body. Cases have occurred of persons who have been nearly all their lives blind, but who have suddenly received the gift of sight for a moment, for a day, for a week, for a month, but as suddenly relapsed into the same darkness which had so long enveloped them. Confirmed dyspeptics will occasionally, or for once, be able to eat a hearty meal without suffering the usual distress, in consequence of a sudden or temporary improvement of the organs of digestion. So all the organs of the body are liable to fluctuations. If usually in health they may have an hour or a day of disease. If usually diseased, they may have an hour or a day of freedom from that disease. The procreative organs are not exempt from this liability.

Fig. 47.

THE OVARY IN OLD AGE.

The foregoing hints are suggested to my mind by some cases of matrimonial unhappiness which have come under my observation. I will relate one in this connection. A lady once called on me who had been married twelve or fifteen years, and had had but one child, and that after nine fruitless years. Her previous and subsequent periods of sterility aroused the green-eyed monster in her husband, and she assured me her home had become a perfect pandemonium; first because she did not have a child, and next, because, having one, she did not have more, from which latter fact he imagined he was not its natural father. I would advise all husbands who are afraid to father children which in their jealousy they think do not belong to them, to read my Philosophy of Child-marking (see page 343), which, I think, will have the effect to make husbands more attentive to their wives, in order that they may so win the love of those who are to become the mothers of their offspring, that a child will be marked by them in embryo life. Jealousy and abuse of the wife will do more to insure the birth of children by her resembling other people, than could possibly result from actual impregnation by the spermatozoa of others if confidence and kindness be generally manifested by the husband. Treat a wife badly, if the spermatozoon which impregnates her may have been produced in you, the chances are, the child will resemble some one her mind more agreeably dwells upon. Treat her kindly, and though she may, under a momentary impulse, be impregnated by an-

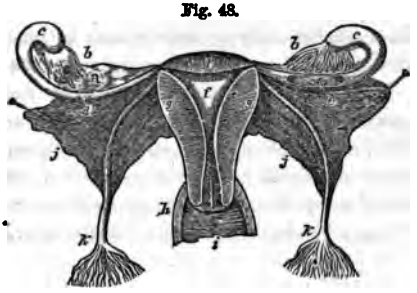
other, the chances are ten to one the child will resemble you, and, in fact, be your own as much as if the little germ, insignificant in itself, had originated in your own organs of reproduction (see page 354). But, aside from these suggestions, do not suspect unchastity in your wife merely because, after years of barrenness, she accidentally conceives, and then, after the birth of one child, relapses into the former sterile condition; such a circumstance is not uncommon when the mother of the first and last baby never for a moment relinquished the chastity and fidelity which Cæsar demanded that a wife should possess.

IMPOTENCY.

This term may be properly applied to that inactivity of the organ of amativeness, or that interruption of its nervous or electrical communication with the procreative organs, which paralyzes the erectile tissue or muscles of the latter. It is usually only used in speaking of such difficulties among males. But it is a physiological truth, promulgated for the first time in this place, unless contained in some medical work which I have not had the pleasure of perusing, that females as well as males are sometimes impotent. I know how the lexicographer defines the term, but I claim for it a more extended application than is usually conceded, and the correctness of my position will be made plain in a few paragraphs.

What is termed "erectile tissue" seems to consist of loose elastic tissue intimately interwoven with nerves, and divided into multitudinous cells, into which, under excitement, blood is forced, filling or congesting them to their utmost capacity. The penis and glans-penis of the male, and the clitoris, nymphæ or internal labia, and a portion of the vagina of the female, are largely composed of this tissue, and the nerves in these parts being numerous, and in a healthy state sensitive, a little titillation will give them prominence and turgidity. Or, if the organ of amativeness becomes aroused without any such local titillation, it precipitates such a supply of electrical stimuli upon the nerves of the organs under its control, that they suddenly become erected. The nervous forces so sent not only contract the muscles of the arteries adjacent to the erectile tissue, by which their blood is forced into the latter, but the heat which the presence of the nervous stimuli creates, also invites the pressure of blood. Every person who has ever immersed his feet in hot water, has undoubtedly noticed how distended the veins of them become. This is not in consequence of the

Fig. 48.



WOMB, OVARIES, FALLOPIAN TUBES, ETC.

a, right ovary; *b b*, the fimbriæ on either side. On one side the fimbriæ are seen spread over the ovary, and on the other in the act of taking up an ovum or egg from the ovary; *c c*, the fallopian tubes; *d*, an ovum being grasped by the fimbriæ; *e*, an ovum descending the fallopian tube toward the womb, after having been taken up by the fimbriæ; *f*, cavity of the womb; *g g*, body of the womb; *h*, wall of the vagina; *i*, vagina; *j j*, broad ligaments; *k k*, round ligaments.

contact of the water itself with the feet, but because the water imparts its heat to them, while the blood is ever ready to congest any part of the system which is unduly heated. Now, whether or not the external temperature of the erectile tissue is heightened, so as to be perceptible, when the organ of amativeness warms it up with its magnetic influence, certain it is, an unusual degree of heat is present therein, and that there is every incentive given for the blood to occupy and distend it, as well by invitation as by coercion.

But it is not by the congestion of the erectile tissue alone that the penis of the male and the clitoris, nymphæ, etc., of the female become erected under amative excitement. All of these organs are also provided with erectile muscles, which, when free from the presence of the electrical excitation, are flabby and shrunken in size, and under excitement, extended and rigid.

The fallopian tubes of the female which carry the egg from the ovaries to the uterus, not only seem to be spongy bodies, capable of distention by congestion of blood in their veins, but like the penis, clitoris, and other erectile organs of both sexes, are also provided with erectile muscular fibers. These tubes, commencing at the uterus and terminating in a fringe-like protuberance called the fimbriæ, in juxtaposition with the ovaries, are represented by *c c*, and *b b*, in Fig. 48. During coition, if the female is not impotent, the fallopian tubes are erect, and at the climax of the act, the fimbriæ grasp the ovaries. If the egg or ovum is matured, it is sucked up by them and carried to meet the spermatozoa of the male for impregnation. I know it is disputed by some physiological writers that the fimbriæ grasp the egg under the influence of the sexual orgasm, but their objections are poorly supported, or I better say, well refuted by facts.

Blundell says: "The vaginal canal during heat is never at rest; it shortens, it lengthens, it changes continually in its circular dimensions, and when irritated, especially, will sometimes contract to one third its quiescent diameter. In addition to this, the vagina performs another movement, which consists in the falling down, as it were, of that part of the vagina which lies in the vicinity of the womb, so that every now and then, it lays itself out flatly over this orifice, as we should apply the hand over the mouth in an attempt to stop it." The entrance to the vagina is also provided with a sphincter muscle, which, in health, contracts so as to prevent, in a measure, the escape of the seminal fluids injected therein.

Now, then, in my opinion, when the organ of amativeness is cut off from proper electrical communication with the erectile tissue and muscles, so that the erection and proper action of the procreative organs are imperfect, the disease may be properly termed impotency, whether the person so affected be female or male. The disease, whether it exists in one sex or the other, is certainly identical in its nature and effects.

The fact that the organ of amativeness in the Congress or Parliament of the mental faculties, is the member who governs the amorous impulses, that the organs of generation act under its direction, and that it communicates with the latter by the nervous telegraph between them, is illustrated in cases where the cerebellum (the part of the brain where amativeness resides) becomes diseased or impaired by accident. I have, at this time, a very respectable married lady under my treatment, whose cerebellum is the seat of painful neuralgia, and since the advent of this disease, she expresses the belief that neither marriage nor sexual intercourse is right, and it is with difficulty her friends can prevent her from separating from a kind and devoted husband, to whom she had, previous to this attack, been fondly attached. Pancoast mentions the case of a young officer, who, on the eve of marriage, received a "blow on the occiput (back of the head) by falling from a horse. He became impotent without any other derangement of his bodily or mental functions, and in his distress, upon discovering his imperfection, committed suicide on the morning fixed for the wedding."

The various members of the body, are, in health, under the control of the congress of mental organs. If a mechanic wishes to build a house, Mr. Constructiveness telegraphs to the hands and feet to proceed to execute the work. A congress of the various organs convenes, and Messrs. Causality, Comparison, Size, Ideality, etc., etc., all have

a voice in the matter. But Mr. Constructiveness is the "boss of the job" and sees that the work is done up "ship-shape." But if Mr. Constructiveness is shut off from all communication with the head or feet by what is termed paralysis, then the hands cannot perform the work, and Mr. C. might as well shut up shop until the telegraphic or nervous communication is opened, and he obtains control of the wires or nerves. Now amativeness and philoprogenitiveness have agents to do their work. But if telegraphic communication is cut off between the base of the brain and the organs of procreation, impotency is the result.

Excessive study will sometimes so divert the nervous forces from the base of the brain that perfect disinclination for sexual intercourse will ensue, to those who previously possessed much amative passion. Here the intellectual organs consume all the brain nerve-force and starve out amativeness. On the other hand, cases occur, in which both men and women, by thinking too much of sexual matters, or from some other cause, which inharmonizes the distribution of the nervous forces among the mental faculties (so that the organ of amativeness is unduly excited), become crazy in ungovernable desires for constant gratification of their sexual instincts. This disease, when it affects females, is called nymphomania; when it affects males, satyriasis.

Sometimes, the erectile tissue and muscles of the procreative organs are supplied at intervals, with nervous or electrical stimuli from what is called the inferior plexus, near the terminus of the spinal column; while all direct or instantaneous communication between them and the organ of amativeness, seems to have ceased. In these cases erections will occur involuntarily or by titillation of the parts, but they generally become flabby and powerless in any attempt at copulation. Such cases are not at all uncommon among males, for I have treated many of this description, and it is probable the difficulty is quite as common among females, although I have not had so many cases from among the latter, nor does it prevent them from indulging in a spiritless union with the opposite sex.

Impotency in either sex, does not necessarily produce barrenness. If the testicles of the male secrete semen, containing healthy spermatozoæ, and the ovaries of the female produce completely formed ova or eggs, then they are not in the strict signification of the term barren. In fact, impotent women do in many cases conceive by the spermatozoæ being injected into the mouth of the womb, and there finding a ma-

tured egg, which, if not taken up by the fimbriæ of the fallopian tubes during coition, may have entered and descended one of the tubes a short time before.

The organ of philoprogenitiveness is often active when the organ of amativeness is powerless, and the difficulty in the way of the impotent man, if he has healthy spermatozoæ, lies in his inability to penetrate the female organs. Still, under a local excitation of the parts, if taken advantage of, the act may be accomplished. In some cases, amativeness may even be active, and the person may have the strongest desire for sexual intercourse without the ability to perform the act satisfactorily. When this is the case, amativeness is sufficiently stimulated by the nervous forces in the brain, but either the nervous communication between it and the sexual organs, or else the nerves in the sexual organs themselves, are paralyzed or partly so.

Fig. 49.

FRONT VIEW OF THE PENIS.

A, the glans-penis, the corrugated lines indicating the appearance of the erectile tissue under the microscope; B, orifice of the urethra; C, the foreskin; D, the great vein; E E, nerves; F F, arteries; G G, cavernous bodies in the penis; H, urethra; I I, the erector muscles.

The causes of impotency are as numerous as those which produce nervous inharmony of any kind. Perhaps the most common are, intemperance in the use of stimulating food and drinks, masturbation, and sexual excess. Among ladies, sedentary habits may be the most frequent cause. Their muscular systems become relaxed, and their nervous systems disordered, for want of pure air and out-of-door exercise.

Various medical devices of a topical or local character have been resorted to by physicians to cure the disease, and it seems to me that no argument is required to prove their inefficiency. The seat of the disease, as I have already shown, is not in the genital organs, except in occasional cases. In a great majority of them the disease is the result of a want of proper communication between the cerebellum and the organs of procreation. What is wanted then, is some remedy or remedies calculated to re-establish that connection. Is it not self-evident that electricity in some form is alone capable of

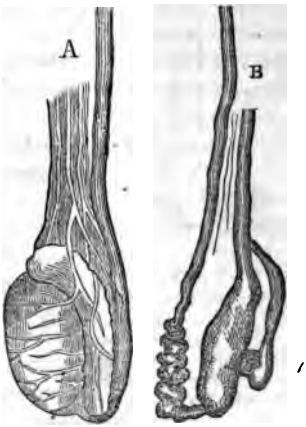
effecting this result? Unless the communication has been interrupted by the destruction of some portion of the nerves connecting the upper organs with the lower ones, by a knife, rifle-ball, or other missile penetrating the body, of course the lines or nerves for such communication are there the same as before impotency All that is necessary is to *stimulate them into activity*, and render them once more conductors of the telegraphic messages which amativeness desires to send. If the impotency results from inactivity or partial paralysis of amativeness itself, then that must be awakened to new life. In all other forms of paralysis, or want of nervous action in any part or parts, it is universally conceded that electricity is the true remedy. Then why not in this? All these arguments, however, are only necessary for such persons as are afflicted with impotency who have never stopped to consider the pathology of the disease, and the most rational mode of effecting a cure. I will close this essay by inviting all who are laboring under this mortifying disease to call on me in person or consult me by letter. (See page 238.)

SEMINAL WEAKNESS.

This disease is technically termed Spermatorrhœa, and is usually the offspring of masturbation or self-abuse, although occasional instances are met with in which the difficulty was unquestionably inherited from the father. It exhibits itself locally by involuntary discharges of the seminal fluids through the orifice of the penis, or, more properly speaking, from the urethra. In the advanced stages of the disease there is also a wasting away of one or both of the testicles. In the illustrations, Fig. 50, A represents a healthy testicle, and B one which has become wasted by masturbation and seminal weakness.

There are, in reality, two kinds of spermatorrhœa, which are of so opposite a nature that treatment beneficial to one is injurious to the other. One results from an excessive expenditure

Fig. 50.



THE TESTES, IN HEALTH AND DISEASE.
A represents one in health; B, one wasted by masturbation.

of nervous stimuli on the organ of amativeness and the organs of procreation; and the other, from a want of nervous vitality in the procreative organs, while the organ of amativeness may or may not be abnormally excited. In the former, or where there is undue excitability of the organs of amativeness and generation, emissions occur with erections, and usually under the influence of lascivious dreams. The victim is suddenly aroused under the most intense amative excitement, just as the seminal fluids are ejected, or, in some cases, he may not discover what has happened until some time afterward, although he remembers, either clearly or vaguely, the amorous dream under which the excitement and seminal loss took place. A person predisposed to this form of the disease may have it greatly aggravated by pin-worms in the rectum, or by any affection of the vascular system which produces an itching humor in the urino-genital organs. The worms will so titillate the nerves leading to the sexual parts, that erections and losses of semen result. A slight inflammation or eruption in the neck of the bladder may, when the latter becomes distended with urine in sleep, cause an erection; and if the person becomes sufficiently awakened to get up and urinate, an unnatural emission of semen may be avoided. If he does not, the debilitating discharge is almost sure to take place.

The other form of Spermatorrhœa, arising from a relaxed condition of the organs, or, in other words, from a want of proper nervous stimulus to give strength to the spermatic vessels and ducts, is usually the most difficult and troublesome. It is the open door to impotency, and frequently the latter exists with it, or, perhaps I had better say, that it continues after impotency has taken place. A person afflicted with spermatorrhœa of this character loses the seminal fluids on almost any occasion giving rise to amative emotion, or physical effort. They exude when in the company of ladies, or in riding, walking, or urinating, and particularly at stool, if costive. Fig. 51 represents a microscopic view of the floating mucus and spermatozoa as found in the urine of

Fig. 51.

SPERMATOZOA, ETC.

Discovered by the aid of the microscope, in the urine of one having the worst form of spermatorrhœa.

one afflicted with this disease. The spermatic fluids may be wasted in this way for weeks, months, and sometimes years, if the constitution of the victim holds out so long, without his being aware of the drain which his system is suffering under, although he cannot fail to suffer from its effects. Some persons of constipated habits, troubled with this form of spermatorrhœa, eject large quantities at every stool; others will merely find, by examination, a drop or two oozing from the urethra. These diurnal losses are, if possible, more exhaustive than the nocturnal, and the mental sufferings of the patient are usually intense.

I have yet to speak of a more difficult and debilitating form of spermatorrhœa than what I have already mentioned, and that is a complication involving both of the forms described. Persons affected in this way will have occasional erections, attended with frightful losses, while they are almost constantly suffering with diurnal discharges. Their procreative organs seem to be vibrating between an excess of nervous stimulus and an entire want of it. There is seldom, in such cases, any mental control of the parts. Erections will take place involuntarily, when cohabitation is not thought of, but when desired, the erectile tissue and muscles are flabby and powerless.

The local symptoms attending the several phases of spermatorrhœa, I have already given. The constitutional symptoms are various, according to the temperament and idiosyncrasies of the invalid. In some cases only a little nervous irritability or debility is experienced, while the mind gradually loses its vigor and activity. The victim is no more aware of the gradual approach of imbecility than an old, infirm man who is losing his faculties day by day and seems unconscious of declining intellect, and feels exasperated if his abilities are questioned. Another is alive to his actual condition—finds his memory waning—his powers of concentrating thought declining—and both his bodily and mental energies wasting away. Still another loses suddenly his mental powers, and becomes idiotic or insane. Still a greater number live in the greatest mental and physical despair, if not actual wretchedness. Hypochondriasis seizes upon them;—they are full of whims and bugbears; they imagine the approach of all sorts of evils; feelings of dread constantly overpower them; and they fear death as if it were a plunge into a pit of burning sulphur or something worse, and nothing in nature can excite their admiration or awaken within them pleasurable emotions. They are blind to the beautiful things a generous Creator has strown in their

pathway, and a look upward at night-time into the begemmed heavens, bewilders rather than enchants their depressed and troubled spirits. Their imaginations are wrapped in a pall of horrors; and though they may occasionally peep through its folds, and catch a ray of hope and sunshine, a little thing startles them, and they turn from a world of horrors without to a temple of terrors within. If these mental hallucinations do not harass them they are dizzy-headed, short of breath, dyspeptic, victims to sleeplessness, neuralgia, pains in, and palpitation about the heart, debility, nervous irritability, fretfulness, and melancholy. I do not mean to say that one person suffering with spermatorrhœa has all these troubles; but every sufferer has one or more of them depending upon the sensitiveness of his nervous organization and the length of time his disease has affected him.

What adds most to the horrors of this malady, which drains off the most vital fluids of the organism, strikes at the intellect and manhood of its victim, is the ignorance of the profession generally, in its treatment. As a rule, medical men treat one form of the disease precisely as they do the other, and this lack of discrimination and discernment aggravates the trouble, and destroys the confidence and hope of the patient. Then, too, local remedies are generally too greatly relied upon. I have already shown that the disease in its various forms, is perpetuated by nervous derangements, or I have at least explained the manner in which nervous irregularities produce the losses. There is either an excess of the nervous forces precipitated on the organ of amativeness and the procreative system, or else there is a moiety, except in cases of complications such as I last referred to, in which there is a vibration between the two extremes. Consequently the nervous system must receive especial attention. To regulate the nervous circulation, or, in other words, to restore the nervous harmony, is in fact to effect a cure. At least that is the conclusion I have come to after treating successfully nearly every case which has been placed under my care, and I have had many which I regarded as extremely difficult, and any number of those which were considered incurable under the ordinary systems of medication.

After perusing my remarks at the commencement of this essay, the reader cannot infer that I am unaware that masturbation and sexual excesses are usually the first causes; that in consequence of children not being properly instructed by parents with regard to the evils of self-pollution, they nearly ruin themselves before they know any better; that grown-up boys, or those calling themselves men—mar-

ried men—destroy the tone of their reproductive organs by sexual excesses and other pernicious practices treated of in this book. But all these evil practices induce the troubles which follow, by deranging the nervous circulation, or by robbing the system of nervous vitality. It is true, the vascular fluid or blood suffers from a waste of the seminal fluids because the latter are largely composed of its very best properties; but the nervous system is always the more disturbed, and requires the more particular attention. My custom is, to treat the disease with reference to all derangements involved, combining the remedies in such a way as to reach all, and yet the nervous derangements command my greatest care, and the removal of these is invariably succeeded by a discontinuance of the involuntary discharges.

Persons afflicted with spermatorrhœa cannot be too strongly cautioned against the various clap-traps and catch-pennies of quacks and empirics who profess to have some remarkable panacea for the disease. It cannot be too generally known that a "one-cure-all" cannot be made to suit everybody's case, even if it be possessed of some degree of virtue; but by far a greater number of the advertised specifics are not only worthless but positively injurious. Some of the more powerful of them tend more to dry up the seminal secretions than to impart power to the vessels and ducts to retain them. Thus sterility or impotency instead of the restoration of the parts is effected. Those who have tried them, need not be assured of what I have stated, but I give currency to these facts, for the benefit of those who have not yet been victimized by these pretentious, worthless, and too often harmful panaceas.

Treatment, to be efficient, must be especially prepared for the case, for an invalid can ill afford time in experimenting in the use of nostrums of doubtful utility. Every reader at a distance should state frankly in answer to the questions on page 238, every symptom attending his case, so that a correct diagnosis can be given, and all who become my patients may rest assured that my best efforts will be used for their permanent restoration. Such revelations need not be made by those who call on me at my office, for I can readily detect the nature and extent of the disease in cases personally presented. While most physicians inquisitively examine their visitor, the marks produced by the affection are reliable tale-bearers to my perception. I have treated too many affected with spermatorrhœa not to recognize its victims.

RUPTURE AND HERNIA.

Inasmuch as one in seven of the male, and one in twelve of the female population, is estimated to have either rupture or Hernia, I will devote a little space to the consideration of these uncomfortable, and many times dangerous difficulties, and to the recommendation of the best means presently known, for the cure of cases which have not become irreducible.

It will not answer for me, in this work, intended for the people more than for the doctors, to enter into an elaborate dissertation on the nosology and pathology of the different varieties of rupture and hernia, for, if I should do so, the non-professional reader would find himself plunged into a Latin and Greek nomenclature, from which he would emerge with disgust, if not temporary insanity. There are over twenty varieties, and each has from one to a fourth of a dozen of jaw-breaking names, more creditable to the classical attainments of the medical profession than to its good common sense. The stomach, liver, spleen, uterus, ovaries, bladder, intestines, omentum, etc., may form the contents of hernial tumors. From the circumstances of the situation of hernial sacs, and their contents, herniæ are distinguished or named from each other. Many of these varieties are rarely met with, and I shall only speak of those which more commonly afflict the human family.

It is a common error to suppose that rupture and hernia are two names for one disease. Rupture, properly speaking, is when the intestines or other organs unnaturally protrude or intrude through lacerated or broken walls or membranes, which, in health, retain them. Hernia is an abnormal protrusion or intrusion of the intestines or other organs through natural apertures or canals which have become relaxed or enlarged. They may be called protrusions when they exhibit themselves externally, and intrusions when they invade one or more of the internal cavities. (I make this distinction with the full knowledge that the term hernia is derived from a Greek word signifying *protrusion from.*) If the protruding or intruding parts can be replaced, then it is called reducible rupture or hernia; if they cannot be restored to their natural position, they bear the name of irreducible rupture or hernia. The latter is usually a painful and dangerous disease, and the former may suddenly become so, for if, at any time, a sudden protrusion should be accompanied with a constriction of the aperture or canal through which it passes, what is called strangulated

rupture or hernia ensues, and unless immediate relief is obtained, a hectic flush, vomiting, obstinate constipation, rapid pulse, etc., usher in the fatal stage of the disease, which is characterized by a distended and hard condition of the abdomen, cold extremities, clammy sweats, hiccough, sinking pulse, etc.

Rupture more commonly takes place somewhere about the abdomen, and may be caused by a violent blow, a fall, heavy lifting or pregnancy. Unless the skin is broken (which seldom happens) as well as the inner walls of the abdomen, the protrusion presents very much the appearance of a common tumor. But, if reducible, it may be removed by gentle pressure or by reclining on the back, while coughing, sneezing, reaching upward; and even standing erect gives it unusual prominence.

Fig. 52.

THE INGUINAL REGION.

a, *b*, *c*, represent what is called the inguinal canal; *a* is the location of the external ring, and *c* of the internal ring.

Hernia most commonly makes its appearance in males, in what is called the inguinal region. This location is represented in figure 52, where the groin is laid open to exhibit what is called the inguinal canal. A similar canal exists in the opposite groin.

It must be understood that beneath the skin, the intestines are confined in their proper position by three layers of membrane, muscle, etc., which are denominated the walls of the abdomen. Through slits commonly called rings, in these, pass the inguinal canals from the rings in the inner walls to the scrotum, as represented in the figure. The distance from the internal to the external ring, is usually about two inches; through these rings and canals on either side, the testicles descend to the scrotum, in most cases, just before, or soon after birth, although the descension does not, in some cases, take place till a much later period. After the descension of the testicles, these canals become the residence of the spermatic cords, and not unfrequently, the location of hernial tumors. When there is a protrusion only in the region of *c* in figure 52, it has

only passed though the internal ring, and is therefore called incomplete hernia. When it descends through the entire canal and beyond the external ring (*a*), it is called scrotal hernia. Then the sac or pouch containing the testicles is distended by the protrusion.

Whenever a tumor makes its appearance in the location of the upper ring (*c*), the person so affected should observe if it recedes at night or while reclining; if so, it is probably a reducible hernial tumor, and immediate attention to it will save much trouble. As this region is often the seat of bubo, irreducible hernia is sometimes mistaken for it, and *vice versa*, but only by unskillful men, who are a disgrace to the profession. Such professional blockheads may mistake varicocele for scrotal hernia, but no skillful physician could be excused for the commission of such an error.

Females sometimes have inguinal hernia. Those canals which constitute the paths of the descending testicles and spermatic cords in the male, are occupied, in the female, by small ligaments to steady the womb and prevent its turning backward. But they are so much smaller in females, this description of hernia seldom afflicts women. Occasionally a case of this kind is met with, and now and then, one in which the protrusion descends to the labiæ.

The kind of hernia most common to females, is what is termed femoral hernia. This makes its appearance in the thigh a little below the groin, by insinuating itself through an opening for the passage of the two great blood-vessels of the thigh. The reason why women are more liable than men to this kind of hernia, is because of their greater breadth of hips and larger pelvic cavity.

The navel may be the seat of hernia in both sexes. Infants are most liable to navel or umbilical hernia in consequence of the exertion attending the too early cultivation of the voice in the higher notes, before the opening through which they were nourished in utero-life becomes consolidated. Immediate attention by the mother to a case of this kind, will save life-long trouble to the child.

In adults, hernia is caused by violent exertions, lifting, straining at stool, severe coughing, convulsive sneezing, and by the same causes which produce rupture as named in the first portion of this essay. Debility, arising from nervous derangements or blood impurities, either or both, may be safely pronounced the predisposing cause. The muscular system relaxed by debility, completely prepares the natural apertures through which pass the naval cord, the blood vessels of the thighs and the inguinal canals, for letting through the intestines or

the omentum, or both. Whenever any tumors appear about the abdomen, groins or thighs, notice should at once be taken whether they recede by manipulation or lying down, and if they do, there can be scarcely a doubt that they are tumors of a hernial nature. The individual so affected, male or female, should then lose no time in adopting means for their cure, for unless they are at least protected by a good truss, they may at any moment assume a dangerous form and imperil the life of the sufferer.

THE TREATMENT OF REDUCIBLE HERNIA.—Not many years have elapsed since it was thought by medical men that external, no less than internal rupture, and hernia were incurable; that all that could be done, was to retain the contents of the sac within their proper walls by a well adjusted truss. In process of time, however, it was found that irritation or inflammation of the parts induced by uncomfortable and badly fitted pads, in rare instances, caused an adhesion of the ruptured membranes or a contraction of the relaxed apertures and canals, and the patient became relieved of his troublesome affection. This fact led some doctors to believe that they could get up this adhesive inflammation by surgical operations, and success attended their experiments so far as the production of the inflammation was concerned; but, unfortunately, they found it difficult to control it, and their patients oftener died than recovered, with inflammation in the peritoneum. Such operations are occasionally performed now, but they are extremely hazardous, and no one who does not wish to run the risk of sudden death, should submit to such experimenting.

After the "heroic doctors" had tried their hands till it seemed that death rather than recovery followed their dangerous operations, some enterprising truss establishments undertook to introduce trusses, the pads of which were so arranged as to press on the rupture or hernia with so much severity as to induce this adhesive inflammation in many cases. This was a partial success, but so far as my observation enabled me to judge, the victims of these expedients were almost punched out of the world, such was the pressure required to produce the desired adhesive inflammation. These contrivances are somewhat employed now, but the public has become pretty much disgusted with them, and they will eventually, like old almanacs, become entirely obsolete.

Science moves on, unless bound with the chains of old fogyism, and unsuccessful inventions often suggest to ingenious minds those which

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do prove a triumph. Progress has been made in the invention and manufacture of pads to cure rupture and hernia. Dr. Hicks, in 1855, invented an *inflated rubber pad*, which, though never advertised nor brought prominently before the public, became very popular and called forth the highest recommendation from the celebrated Prof. Silliman of Yale College, and from other scientific men, among whom were eminent surgeons. It was not claimed for this pad that it would effect cures, but its comfortable elasticity, cleanliness, etc., gave it the precedence as a comfortable appliance, and from this circumstance it was popularly denominated the "relief pad." (Figure 53 represents the face of this pad.) Notwithstanding the modest claims for it, however, it effected many cures. This was, no doubt, in consequence of its not interfering with nature's curative operations when she was disposed to remedy the difficulty herself, for there can be no question that both rupture and hernia would often be restored by the natural healing process if not prevented by a hard unyielding truss-pad, which aggravates the difficulty rather than aids in its cure.

Fig. 53.

FACE OF THE RELIEF PAD, With its corrugated cloth covering for conveying away the perspiration. The back of this pad is the same size as that of the permanent cure pad, so that the metallic attachment can be changed in a moment from one to the other, as described in figure 58.

The success of the relief pad subsequently led the inventor to introduce a companion for it, which he named the Permanent Cure Pad. Every one who has ever worn an unlined india-rubber shoe for a little while, next the skin of the foot, knows full well how tender and sore the flesh becomes. The naked rubber seems to have a drawing and irritating effect when applied for a length of time to any portion of the human body, and soreness and tenderness indicating the presence of inflammation ensue. From this fact Dr. H. drew the very philosophical conclusion that a pad constructed like figure 54, would, without the discomfort and uncertainty attending the application of hard pads with a painful pressure, produce the necessary adhesive inflammation. As seen in the figure just referred to, an oblong ball of naked rubber protrudes from the center. Even this ball is inflated with air, as well as the ring which surrounds it, so that its pressure is not painful nor irritating to the outer skin. Indeed, the pressure is not greatly unlike that of

the ball of the finger when pressed gently upon the part, and the adhesive inflammation it induces is produced entirely by the properties of the rubber before explained.

The application of the permanent cure pad, until soreness is induced, followed by the relief pad, to sustain the contents of the rupture or hernia while the healing process is going on, has thus far proved a perfect success in all cases not confirmed by age, and in many long standing cases of persons quite advanced in life, it has proved remarkably and gratifyingly successful. Nor does the inflammation induced by the permanent cure pads seem to involve the peritoneum in the least. No case has occurred in which any troublesome or fatal results have followed their use. The patient has only to apply the pads and effect for himself the cure without any danger whatever. The merits of both the permanent cure and relief pads may be briefly summed up as follows:

Fig. 54.

THE PERMANENT CURE PAD.

b, the cloth-covered rubber ring cushion; *a*, the oval naked rubbber ball in the center for exciting the adhesive inflammation.

1st. They are not expensive. Various contrivances of an uncertain and painful nature for the radical cure of hernia have been offered to the afflicted, but the charge for such appliances has been usually from twenty to thirty dollars, whereas the permanent cure pad and the relief pad of this description are furnished at incomparably lower prices. See page 377.

2d. They are elastic. While they possess sufficient resistance to retain the most troublesome hernia, they readily yield to every motion of the body, whether natural, as in walking or in other exercise, or convulsive, as in sneezing, coughing, laughing, etc. It is well known that stuffed pads become matted and unyielding, and that wooden or porcelain pads are from the first moment of their adjustment uncomfortable. One might as well be punched in the abdomen with a stick, as to cough or sneeze with one of those unelastic contrivances attached to his person. It is found, too, that such an unyielding pressure on the parts, interferes not only with the circulation of the blood, but with the healthy distribution of the nervous forces, and paralysis of the

parts not unfrequently ensues. Those who have long worn ordinary truss pads need no argument to convince them of the truthfulness of this remark.

3d. They will not shift from the part to which they are properly adjusted. Their elasticity causes them to so conform to the anatomy of the parts to which they are applied, that any motion of the body does not disturb their position. This is no mere theory. Those who have worn them, uniformly testify to their possession of this virtue. The wearer may lift, jump, run, sneeze, etc., without changing their position above or below the ruptured or relaxed aperture, which fact proves them to be constant protectors against protrusions of hernia, under any circumstances.

Fig. 55.

A VERTICAL SECTION OF THE RELIEF PAD.

The interior construction of the permanent cure pad is the same. The rim *a*, with the groove beneath, exhibits the place where the metallic plate or attachment is introduced; *b*, the back of the air-chamber; *c*, the front of the air-chamber, or face of the pad; *d*, the air-chamber, which before being cut was fully inflated. (The illustrations were made from photographic views.)

4th. They are cleanly. The perspiration will not penetrate the rubber, while the sweaty secretions are readily carried off by the cloth covering the surface of the relief pad, and nearly covering that of the permanent cure pad. Then, too, as shown in figure 58, they can be readily removed from their metallic attachment. They may then be washed with soap and water, and dried in five minutes. This is an important consideration for those who wear hard pads, for cleanliness. The readiness with which the pad can be removed from the metallic plate which attaches it to the truss, also makes it convenient for changing the pads when desired. Thus the permanent cure pad can be removed, and the relief pad substituted in a moment by any person.

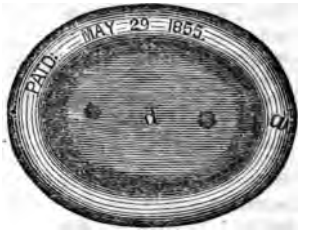
5th. They are durable. They will remain in good order a life-time for those afflicted with incurable ruptures. A more significant proof of the truthfulness of this claim is not needed than the fact that a large truss establishment in this city, objected to the adoption of the pad in its trade, on the ground only, *that it would never wear out!* The proprietors seemed to fear that such a durable pad would injure the business.

6th. The metallic attachment is such that a patient may wear an oscillating, or a fast pad, as preferred. Some prefer what is commonly

called "ball and socket," while others will only have a firmly fastened pad. By removing the screws, which any one can do with his fingers from the bulb on the under side of the brass plate, as seen in figure 57, the pad will oscillate without obstruction. Those wishing a fast pad, by adjusting the screws with a screw-driver, or knife-blade, can set it firmly at any angle desired. Those who have never worn a truss, can with this pad choose between an oscillating and a firm one, by trying both without extra expense.

7th. The pad may be attached to any truss which the wearer may now be using. In a majority of cases it may be done by the patient him or herself, but if not, any mechanic, even a blacksmith, can make an attachment in a few minutes, and at an expense not to exceed twenty-five cents. This is a valuable feature for any one who presently possesses a good spring, and only desires to adopt these valuable pads, or who, living at a distance, wishes to be fitted to a spring at home, and have these pads put on.

Fig. 56.

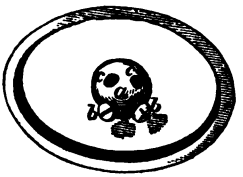


BACK OF THE PAD,
Showing the edge or rim (*a*), under the inner edge of which the metallic plate is introduced; *d*, the back of the inflated air-chamber. The dots on either side of *d* are not holes through, but simply indentions made by the molds in the process of manufacture.

Thus in brief I have named the chief merits of the Hicks pads, which any intelligent person must perceive will eventually take the place of all others now before the public. They must commend themselves to every one, and all who have not tested their utility, may well reason that if the relief pad as formerly constructed, called forth the recommendation of Prof. Silliman after eighteen months' experience and observation, for not only its comfortableness but its liability to effect cures, the use of both the permanent cure pad and the relief pad, cannot fail to effect all that is claimed for them, and the claim is simply this: *that in all cases of reducible rupture and hernia in which a cure is possible, the wearing of the permanent cure pad, followed by the application, for a time, of the relief pad, will unite the walls through which the bowel or any part protrudes, and restore the ruptured or enlarged apertures or canals to their former healthy condition, thereby rendering all truss appliances unnecessary, even for protection.* Thousands of cases supposed to be incurable, may be permanently cured by this process, and at an expense far less than by any other method known

to the profession or public. Although less expensive, they will do more toward effecting a cure than any other appliances in use. Readers who may wish to obtain them are referred to page 377.

Fig. 57.



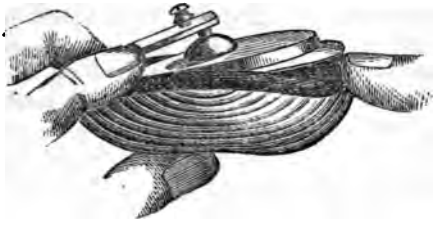
THE METALLIC PLATE,

Representing the under part, which, when attached to the pad, rests on the back of the air-chamber *d* shown in figure 56; *a*, the bulb or cup covering the ball attached to the spring; *b*, *b*, the screws to be pressed upon the ball when a fast pad is desired; *c*, *c*, holes for the introduction of the screws to set it at any angle required.

Before concluding this essay, a few hints as to the most effective means resorted to for the reduction of hernia when reducible, may be properly introduced, inasmuch as such advice may enable the non-professional reader to attend to a case of this kind, when the services of an experienced surgeon cannot be easily obtained.

On the first appearance of rupture or hernia in an infant, it ought to be laid on its back with its head very low. Sometimes when the child is placed in this position, the gut or other protruding part will return itself; when it does not, it may be easily put up by gentle pressure. After it is returned, a smooth ivory button, large enough to cover the aperture, should be placed on and confined in that position by means of adhesive plaster, until a truss with a suitable pad can be obtained.

Fig. 58.



REMOVING THE PLATE FROM THE PAD.

The above illustration represents the simple process of disconnecting the pad from the metallic attachment, which any person may do in a moment. The process of introducing the attachment is equally simple, so that the permanent cure pad may be taken off at any time, and the relief pad substituted. It also enables the wearer to remove the pad to give it a washing as often as desired, and without trouble.

In adults, the following methods may be generally successfully employed: The patient must be laid on his back with his head very low and his breech raised high with pillows. In this situation flannel cloths wrung out of a decoction of mallows or chamomile flowers, or even warm water alone, are applied, and kept on the spot till the parts become sufficiently relaxed to allow the bowel to return. If this does not result in a little time, a clyster of this same decoction, with a large

spoonful of butter and an ounce or two of common salt may be thrown up into the rectum by the anus or back passage of the body. The observance of these rules is often sufficient of itself, to return the hernia, but if they should not prove successful, recourse must then be had to pressure. If the tumor be very hard, a good degree of force will be required. Mere force, however, will not always succeed. The operator while making the pressure with the palm of his hand, must with his fingers so handle the gut as to artfully slip it in by the same aperture through which it first came out of the cavity of the abdomen. The good effects of these manipulations are greatly aided by watching the respiration or breathing of the patient, and only pressing the protrusion when the air is exhaled from the body, inasmuch as the inflation of the lungs produces more or less pressure on the bowels.

Fig. 59.

THE PAD WITH ITS ATTACHMENT.

This represents the back of the pad with its attachment inserted; *a* is the edge or rim holding the outer edge of the metallic plate *b* firmly in the groove; *c*, is the raised portion of plate which forms in connection with the ball under it (*a*, figure 57), the socket for the ball; *d*, the place for introducing the end of the spring, which latter is secured by the screw observed in the third hole of the spring receiver.

Clysters or enemas, better known as injections, are sometimes made of warm water and the smoke of tobacco, and prove entirely successful. As soon as the parts are returned, an appropriate truss should be put on, and if comfort and cure are desired, no pads can be employed equal to the Hicks rubber air-inflated pads herein described.

SALT RHEUM.

I would not devote an essay of even this brevity to Salt Rheum, except for the fact that it is popularly regarded as a distinctive disease. In reality, salt rheum is not a disease. It is only the effect or symptom of disease. It is a name for one kind of *scrofulous* eruption, and the best medical authority so regards it. Many persons subject to it imagine that if they can only get some wash which will remove it from the skin the difficulty will be cured, not thinking that they are simply driving it from the surface to some internal part which will suffer more than the skin by its presence. In thus treating it the humor is

almost sure to attack some portion of the inside skin, called the mucous membrane, so that it is only transferred from the surface skin to that which lines the throat, lungs, stomach, and other cavities, in consequence of which pulmonary, catarrhal, or dyspeptic affections follow. The only safe treatment for it is that which will eradicate the disease, and the disease is *scrofula*. External treatment alone is absolutely dangerous. (See Essay on Scrofula.)

CANCER,

Until within a few years, had been considered by the medical profession generally an incurable disease, although the rude medicine men of the forest have ever exhibited masterly skill in its management by the use of such remedies as are abundantly furnished in their wild abodes. Ten or fifteen years ago, it was common to see invalids suffering with this terrible disease, making pilgrimages of one to five hundred miles, to Indian settlements, for the purpose of obtaining that relief which only the unlettered red man, with his instinctive knowledge of the medicinal virtues of roots and plants, could administer. Since then many liberal minded members of the medical profession have become acquainted with the valuable secrets so long and exclusively known to the aborigines, and still but a few compared with the number who practice medicine, because of the Allopathic opposition to the introduction of all remedies not originated by them or their predecessors. Hence, while those who adopt the means suggested by the intuition of the uneducated Indian, for the cure of cancer, generally succeed, Allopathic professors murder their patients with caustic or the knife.

There are many kinds of cancer, all of which, however, are manifestations of *one* disease, having its seat in the blood. The form in which it presents itself is governed by the idiosyncrasy of the patient Of many individuals having a cancerous humor in the blood, one will have what is called a rose cancer, which looks at first very like a rose-bud, and, as it enlarges, opens and expands like a rose. This generally attacks the womb, vagina, and nose, but may locate in any other part of the system. It is very painful, and sometimes grows to an immense size. Another will have a spider cancer, which takes its name from its close resemblance to a spider, its roots sprangling out like the legs of this insect. Another, a fissure cancer, a dry crack or cut in appearance, which hardens the flesh around it, and increases by deepening its cavity and rendering inflexible the muscles

and glands near it. Another may have a bone cancer, which is surrounded with hard rings, and discharges an odorous and offensive matter. It eats away the flesh rapidly, and in its advanced stages is incurable. Another, a wolf cancer, which is so named because of its devouring character. When very small it eats away the flesh rapidly, and is attended with excruciating pain. Another will be attacked with sleepy cancer, which consists of a growing tumor, attended with little or no pain till it becomes very large, when all at once its victim becomes an intense sufferer. When it has so far progressed as to cause the patient much pain, it is difficult of cure. Another will be likely to have a scaly or bleeding cancer, the former an itching, burning, scaly sore, which eventually becomes ulcerous, and the latter a red and fiery tumor, attended with bleeding and violent pain. Thus, the same disease manifests itself differently in different persons.

Cancerous humor, without doubt, often arises from venereal taint; also, from scrofula and canker. Whenever a person becomes aware that he possesses such an impurity in the blood, he should lose no time in having skillful treatment for its extinguishment. I have cured hundreds of cases of cancer, in all stages of development, by a resort to those remedies which have rendered the medical men of the forest so eminently successful; but the farther advanced the disease, the more difficult becomes the cure, and no one affected with it should waste time in doubtful experiments, and indulge himself in the happy belief that the skillful physician can arrest the disease in its last stages, if other remedies fail. This cannot always be accomplished. Still, in a great majority of cases of cancer, the disease may be cured if the invalid avails himself of the proper treatment, even after it has become quite formidable. No one should submit to a surgical operation until all other means prove abortive, for if the patient happens to survive the painful ordeal, the cancer may start again in the same or another locality. (For treatment see page 231.)

SPINAL DISEASES

Are curable or incurable, according to their nature and the age of the patient. They are almost invariably caused by an impure or weak state of the blood. Scrofula, one of the worst forms of blood disease, is the most frequent cause of weak or deformed spines. It is apt to attack the spongy texture of the vertebræ, and induce suppuration which soon destroys the fine net work of muscles sustain-

ing the ingenious structure. In speaking of this form of the disease, Dr. Syme remarks as follows: "When the pus ceases to be confined near the bone, and begins to drain away from it, the patient generally experiences great relief from his complaints. The pain becomes very much lessened, and the use of his limbs is often, in some measure, or altogether regained. But this amendment is usually accompanied by a serious change to the worse in another respect, since the vertebral column is apt to bend under its superincumbent weight when weakened by the destruction of bone and intervertebral cartilage, which attends the suppuration. The curvature in this case takes place forward, and being confined to a small extent of the spine, causes an acute projection behind, so that one or more of the spinous processes appear to be dislocated backward. This change of shape does not take place either when the extent of the disease is small in proportion to the size of the bones in which it is seated, or when it is so great that the patient is constantly confined to the horizontal posture; but the latter circumstances are comparatively rare in proportion to those which favor the occurrence of curvature. The surface of the abscesses either heals with approximation and consolidation of its parietes, the vertebræ concerned appearing as if run into one mass, or a state of caries remains, and gradually wears out the patient's strength." Spinal disease of this nature is often curable in children, but is a difficult and almost hopeless complaint in those of adult age. The treatment must be such as will cast out the scrofulous humors, and only in this way can the progress of the disease be arrested. An invalid thus affected, even far advanced in life, may be greatly relieved, and have his days upon earth lengthened by the use of such remedies as will purify and nourish his blood.

Fig 60.

NATURAL SHAPE OF THE VERTEBRAL COLUMN.

Spinal curvature often arises from weak and innutritious blood, or, as is more commonly expressed, from general debility. When the muscles which maintain the vertebræ in their natural position become weak and relaxed, because of a want of proper nourishment from the blood, curvature is likely to result. The position of the spine, in double curvature, is represented in Fig. 61. Here the spine

bends both to the right and the left, throwing up the right shoulder and hip and depressing those of the left. I have frequently cured cases of this kind by electrical, mechanical and medicinal remedies; and it is only by a union and skillful application and administration of these that a cure can be effected.

Notwithstanding curvature originates in an impure or debilitated state of the blood, as before remarked, an immediate cause is usually traceable. In scrofulous cases, I have already shown that suppuration destroys the props which sustain the vertebræ and sometimes the vertebræ themselves. But in such cases as arise from weak blood or debility, bad positions in sitting, standing or lying are the active or immediate causes. Lounging in a half horizontal position with the entire weight resting on the elbow, is bad for weak spines. By a frequent repetition of such a position by weakly and delicate persons, the spine will lose its natural form, and become curved. Many young ladies exhibit this deformity by a depression of one shoulder and an upward projection of the other. When discovered by themselves, corsets, shoulder braces and other mechanical means are resorted to, to conceal the deformity, and although they frequently succeed in this, their muscular system becomes still more relaxed in consequence of artificial support, so that when divested of these things the spine exhibits far greater distortion. No mechanical remedy should be used in these cases, unless accompanied with such medical and electrical treatment as will restore the system to its wonted strength, for it is useless to endeavor to remedy effects so long as causes remain, and in spinal deformity it is worse than useless. If produced by scrofula, that humor must be eradicated before a cure can be permanently effected, if by debility, the blood must be increased in quantity and quality.

(For treatment see page 231.)

Fig. 61.

DOUBLE CURVATURE.

PARALYSIS.

This common disease has been robbed of half its terrors by recent discoveries in therapeutic electricity. Not many years ago, a person attacked with it felt that he was a doomed cripple for life, unless nature could prove itself sufficient to overcome the disease and restore to the affected or obstructed nerves harmony of action. The remedies of Allopathic practitioners never have and cannot now cure paralysis, but in the hands of a skillful electrician and physician, this disease becomes as yielding as most other forms of chronic complaints. Nor is it for want of a proper knowledge of its pathology that the "regulars" are so uniformly unsuccessful in its treatment. Dr. Hooper very correctly defines it as follows: "It may arise in consequence of an attack of apoplexy. It may likewise be occasioned by any thing that prevents the flow of the nervous power from the brain into the organs of motion; hence tumors, over distention, and effusion, often give rise to it. It may also be occasioned by translations of morbid matter to the head, by the suppression of usual evacuations, and by the pressure made on the nerves by uxations, fractures, wounds, or other external injuries. The long continued application of sedatives will likewise produce palsy, as we find those, whose occupations subject them to the constant handling of white lead, and those who are much exposed to the poisonous fumes of metals or minerals, are very apt to be attacked with it. Whatever tends to relax and enervate the system, may likewise prove an occasional cause of this disease."

The same writer also correctly describes the symptoms preceding and occurring with an attack. "Palsy usually comes on with a sudden and immediate loss of the motion and sensibility of the parts; but, in a few instances, it is preceded by a numbness, coldness, and paleness, and sometimes by slight convulsive twitches. When the head is much affected, the eye and mouth are drawn on one side, the memory and judgment are much impaired, and the speech is indistinct and incoherent. If the disease affects the extremities, and has been of long duration, it not only produces a loss of motion and sensibility, but likewise a considerable flacidity and wasting away in the muscles of the parts affected."

Notwithstanding the pathology of the disease is generally understood by all experienced practitioners, only those who have deeply investigated the science of electricity in its application to diseases of

the human system, are at all successful in curing it. Many of the prescriptions of old school practitioners tend to perpetuate and produce rather than relieve it. Cupping, blistering, and the administration of nux vomica, opium, etc., are often attended with injurious results

Fig. 62.

PARALYSIS OF THE FACIAL NERVE.

There are four species of paralysis, viz: "*Paralysis partialis*, partial or palsy of some particular muscle; *Paralysis hemiplegica*, palsy of one side longitudinally; *Paralysis paraplegica*, palsy of one half of the body, taken transversely, as both legs and thighs; *Paralysis venenata*, from the sedative effects of poison;" all of which may be permanently cured in their early stages, and frequently when far advanced. In young people, paralysis of many years standing may in a majority of cases be removed by proper treatment. Many invalids suffering with this disease lose confidence in the curative powers of electricity by a misapplication of the element. No definite rule can be laid down for the use of an electrical or elec-tro-

magnetic machine, which will apply successfully to all, because the application must be varied in time and direction of current with the peculiarities of different cases. Beside, paralysis may be, and often is, produced by humors or tumors gathering around or pressing against the nerve or nerves, and in these instances the blood must be treated with skillful medication at the same time electricity is being administered. A little nice discrimination, with a proper understanding of appropriate remedies, is sufficient to overcome almost every case of paralysis. (For treatment see page 231.)

DISEASES OF THE HEART

Are fearfully on the increase, and it is well for those who either have or are predisposed to them, that the edict of old school practitioners—"can't be cured,"—is fast being proved fallacious, by not a few of the doctors of the new school, whose deep researches in physiology and *materia medica* are daily developing new and successful remedies for these heretofore fatal complaints.

Fig. 35.

1, The superior vena cava; 2, the inferior vena cava; 3, the right auricle; 4, the right ventricle; 5, the situation of the tricuspid valves; 6, the partition between the two ventricles; 7, the pulmonary artery; 8, the point where it separates and enters the right and left pulmonary artery for the corresponding lungs; 9, the four pulmonary veins bringing the blood into the left auricle; 10, the left auricle; 11, left ventricle, 12, location of mitral valve; 13, location of sigmoid valves of the aorta; 14, the position of the sigmoid valves of the pulmonary artery.

THE HEART, ITS CHAMBERS, ETC.

Considering the peculiar and delicate machinery of the Heart, as illustrated in Fig. 63, it is wonderful that this organ is not more frequently affected in some way, especially when we bear in mind the recklessness with which mankind violate nature's laws. In consequence of these violations, however, the Heart is *becoming* a common seat of disease, and in late years twenty-five per cent. of all the invalids who have presented themselves in my office for medical examination, have been affected more or less in this locality.

It is common for old school doctors to deceive their patients when there are indications of heart disease, by telling them that no such complaint exists, and perhaps this course is well enough so long as they pronounce it, in all its forms, incurable, for it certainly is not

well for a person so afflicted to know the true nature of his ailment, if he is at the same time assured by his medical adviser that it is one which defies medical skill. Still, I should not neglect to remark that many nervous people imagine they have this disease when there is no trace of it; and they often suffer more than those who experience the reality. Such persons are nervously diseased, and, unless cured, are apt to bring on, by their imaginings, some serious difficulty. I have examined hundreds of invalids who supposed they had a heart disease, when there was not the least cause for the supposition, and many others in which the complaint consisted of only a slight inflammation of the pericardium—the sack surrounding the heart.

There are many forms of heart disease, such as rheumatism, dropsy, enlargement, softening, fattening, ulceration, cancer, tubercles, tumefaction, etc., all of which I positively assert can be cured in their early stages, and in a majority of cases when considerably advanced. My remedies are vegetable medication, electricity, water, air, light, cheerfulness and moderation in eating and drinking. All stimulating drinks, notwithstanding they afford temporary relief, are exceedingly injurious, and should be strictly avoided. The stomach should never be overloaded, though the selection of food may safely be left with the invalid. Cheerful company, freedom from excitement, avoidance of crowded assemblages, good air and sunlight, all assist the skillful practitioner in curing the disease. I have cured hundreds of difficult cases after they had been through the hands of from one to thirty different physicians unbenefitted. (For treatment see page 231.)

NEURALGIA.

Neuralgia is a disease of the nerves and may affect any part of the nervous system, although it most commonly attacks the nerves of the face, jaws, breast, and feet. Its presence is announced by the most piercing, darting pains, recurring in paroxysms, followed with brief intervals of relief. But hardly a moment elapses after a lacerating pain darts along the course of the affected nerve, ere another shoots forth, inflicting pain equally distressing to the patient.

The pathology of this disease is about as little understood by the medical profession as the science of aërial navigation. As well might a person look into patent medicine almanacs, Robinson Crusoe, or the yellow-covered literature of the day, for a correct explanation of the

nature of the disease as into the pages of medical publications. Medical authors generally attribute its cause to nervous debility. What is nervous debility? Why, it is simply a relaxed and enfeebled condition of the system resulting from an insufficient supply of nervous vitality. Persons so affected are troubled with lack of strength an want of vivacity or animation. Now every one knows that neuralgi is often found among persons of robust appearance, who have a fai degree of strength, and that it sometimes manifests itself in thos possessing extraordinary muscular power and physical vigor. How can this fact be accounted for, if nervous debility be the cause?

Now, then, let us take a *common sense* view of the disease. An impure condition of the blood or the presence, in the system, of some poisonous mineral like mercury or lead, may cause inflammation in any nerve which the impurity or mineral may attack, and when the nerve is attacked by either, so that there is danger of the nervous communication being blocked up, the available nervous forces are gathered up and suddenly precipitated at intervals upon the obstructed nerve by the efforts of nature to keep the communication open. These violent propulsions of the nervous forces through the inflamed nerve cause the sharp darting pains. Nature always attempts to get rid of any functional intruder. This is illustrated when something gets in the eye; a sudden gush of liquid from the tear-passages, attempts to carry it out. If something offensive to the olfactory nerves, or not suitable to breathe into the lungs, enters the nose, an involuntary sneeze takes place for its removal, or, at least, to prevent its entering the pulmonary organs. If the stomach is crammed with a mixture of unwholesome food, nature often visits upon the careless gormandizer a diarrhœa to carry it off. If corrosive or acrimonious secretions of the bronchial tubes roll down toward the air-vesicles of the lungs, a cough involuntarily takes place to bring them up. Now all these efforts of nature to effect relief, may sometimes not only prove unavailing, but go too far, unless remedies are resorted to for the removal of the intrusion which she has faithfully tried to dispose of. The tears may flow too copiously or too continuously; the sneezing may become convulsive and painful; the diarrhœa may become excessive, continuous and debilitating; and the cough may become rasping, exhaustive and alarming. So with the precipitation of the nervous forces on the nerves attacked by unwholesome humors or mineral poisons which threaten to cut off communication through those nerves; it may become too painful, too continuous, and even threatening, unless remedies

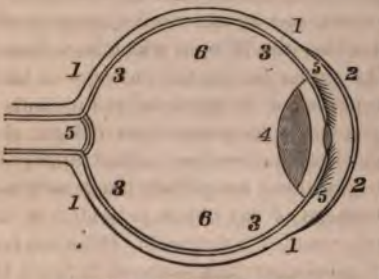
are adopted to assist nature in getting rid of the offensive visitors, but that natural effort, that sharp-shooting of the nervous forces through the invaded and inflamed nerves for the expulsion of the invaders, that, I say, is neuralgia. Neuralgia is a regular pitched battle between the forces circulating through the nerves and the offensive humors or minerals which attempt to obstruct their pathway, and when they are defeated, paralysis of the parts follows, for the nerves of sensation, or motion, or both, become lifeless when the passage of animal electrical currents is completely obstructed. Sometimes the warfare will be kept up for years, at intervals, unless something sensible is done to assist nature. The assistance needed, is readily suggested by a proper understanding of the disease as herein explained. If blood impurities are attacking the nerves, remedies suitable to cleanse and nourish the vascular fluid, must be taken by the patient at the same time electricity is being locally applied to relieve the painful paroxysms and the inflammation which has taken place in the affected nerve. If mineral poisons are lurking in the system and permeate the delicate nervous structure, the electro-chemical baths, skillfully administered, are necessary to remove the *cause*, and electrical applications or medication, according to the indications of the case, essential for a cure of the *effects*. The advances made in the science of electrical therapeutics have placed neuralgia in the list of curable diseases, notwithstanding the bigoted carpings of allopathic old fogies, many of whom even at this late day, deny its curability; and why? Simply because they have not been able, with their obtuse comprehension, to see into the occult science sufficiently to successfully employ it in the treatment of the more difficult ills which afflict mankind. I would refer those suffering with neuralgia to pages 110 and 231.

PRESBYOPIA OR LONG SIGHT.

Under this head I have something to communicate, which will receive a cordial welcome by all sensible people whose eye-sight is becoming impaired by age. Those who imagine that it adds to the dignified appearance of a lady or gentleman to have the eyes hidden behind convex glasses, and the head nearly encircled with golden bows, cannot be expected to pursue the subject of this essay with interest. Happily the latter class is in a decided minority compared with those who dislike the adoption of any and all paraphernalia indicating the approach of age and infirmity. If any species of vanity

is excusable, it is that which leads an individual to adopt every means science and art have provided, to overcome or even disguise the infirmities of age. If age is venerable, youth is *desirable* and admirable, and every one may be pardoned for striving to preserve vigor of eye and limb, and even the pristine beauty of skin and feature. Admiration irresistibly takes possession of the mind when we see an old person of either sex, who has preserved from infirmity the mental faculties and physical energies. And such persons are morally deserving of this admiration as a reward for having properly used and taken care of, instead of abused and neglected the mysterious powers a good God has planted in the mind and body of his most perfect work—man. But that vanity which leads young persons to seek to appear prematurely infirm, gives positive evidence of their possession of one infirmity at least, *i. e.*, mental imbecility. If these premises are correct, we may logically conclude that the wearing of glasses or spectacles is certain evidence of infirmity. Either the eyes are defective or the mind is demented, and in the latter case, it would be better to incase the whole face in calf-skin than to merely hide the eyes behind transparent glass.

Fig. 64.



VERTICAL SECTION OF THE EYE.

1, 1, 1, 1, the sclerotic membrane, or what is usually called the white of the eye; 2, 2, the cornea; 3, 3, 3, 3, the retina; 4, crystalline lens; 5. 5, iris; the aqueous humor which forms the aqueous-lens occupies the space between the iris, 5, 5, and the cornea, 2, 2; 6, 6, the posterior or back chamber of the eye, which is filled with the vitreous humor.

As yet, unfortunately, science has revealed no certain means for the cure of the too great convexity or sharpness of the organs of vision, and therefore near-sighted people are entirely excusable for employing concave lenses to aid their imperfect vision; but when the fact becomes generally known that long sight, requiring the use of convex lenses, such as old people wear, in most cases may be prevented or removed with very little expense and trouble, may we not hope that glasses will less frequently cover the eyes of people in middle and advanced life.

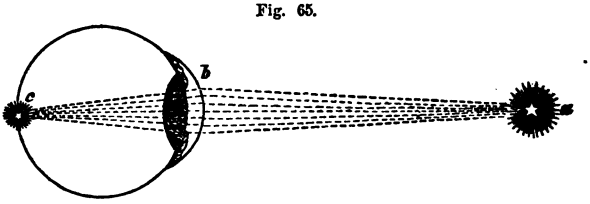
Before proceeding further with this subject, the non-professional reader should be made acquainted with the organs of vision. What

is the eye? What are its functions, and how does it perform the mysterious office of seeing? The human eye, taken as a whole, may be regarded as a globe; and, although it cannot, like the planet, be divided into eastern and western hemispheres, it may nevertheless be divided into hemispheres which are subject to many subdivisions. The several parts of the eye necessary to be defined for the purpose of this essay, are the sclerotic covering of the globe, to which should be added the cornea, the two lenses—aqueous and crystalline—the vitreous humor, the retina and the optic nerve. Reference to figure 64 and its explanations, will enable the reader to learn the location of these. The sclerotic is a firm fibrous, opaque, or untransparent membrane, covering and protecting four-fifths of the globe, while the cornea, of a dark hue, covers and protects the balance or front, central portion of the globe. At the center of the cornea is a transparency of the size of, or perhaps somewhat larger than, a pin's head, through which light is admitted into the dark chamber of the eye. This cornea also forms the anterior or front capsule of the aqueous lens, convex in form, so as to converge or bring together the rays of light as they pass this more dense medium than the atmosphere. Behind the aqueous or fluid lens is located the crystalline lens, the capsules of which are of a firm, delicate, transparent texture, and its face convex, so as to still more converge or bring together the rays of light which have passed through the aqueous lens. The retina lies in the posterior or back hemisphere of the globe, as represented in figure 64, and presents a concave or hollow surface, upon which to receive rays of light, giving the form or image of any object the eyes are turned upon. If the two lenses—aqueous and crystalline, are neither too greatly nor too slightly convex, a perfect image of any object presented, is daguerreotyped on the retina, as represented in figure 65. If too convex, the image is formed before it reaches the retina, as shown in figure 66, and the person is near-sighted, so that objects must be held close to the eye to throw the image far enough back to produce the perfect picture on the retina; if flattened or not sufficiently convex, the retina is not far enough back to receive a perfect image of near objects, and the latter must be removed away a suitable distance, to have the picture of the image fall correctly on the retina (see figure 67.) Persons thus affected are long-sighted, and their eyes are *said* to be impaired by age.

It remains to speak of the optic nerve. This nerve is attached to the retina, or more properly speaking, the retina is a continuation of

expansion of the optic nerve. It perforates the sclerotic back of the eye, enters the cranium and connects with the sensorium, by means of which, as by a telegraph wire, intelligence is communicated to the brain, of the various images which are from time to time formed on the retina, and made mysteriously to pass before the mind's eye. So far, we are allowed to understand how vision is effected; but after having fully pursued the philosophy of the *material* we come to the *spiritual*, and here philosophy must end and faith begin.

Fig. 65.

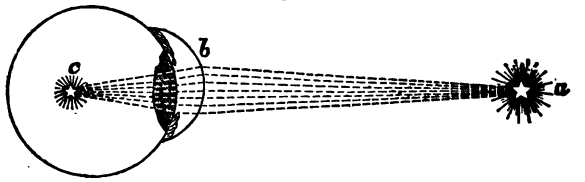


AN EYE WITH PROPER CONVEXITY.

a, is the object seen; *b*, the cornea, which catches the rays of light reflecting the image of the object; *c*, the image properly focalized on the retina.

Now, the several parts of the eye when put together, form an optical instrument—a mechanical machine—which will perform its functions after death, and, what is still more mysterious, after the globe has been removed from its socket. Hence it is perceived the eye is so organized as to receive and converge, or draw near together the rays of light, and thus perform the office of glass-lens. Place the convex

Fig. 66.



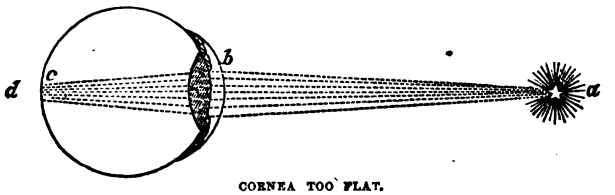
TOO GREAT CONVEXITY, OR SHARPNESS OF THE CORNEA.

a, the object; *b*, the too convex, or sharp, cornea; *c*, the rays of light converged, or focalized, forming the image before reaching the retina. A person so affected is called near-sighted.

surface of a lens to the solar rays, and those rays will be refracted, converged, or in plainer words, bent toward each other, till they finally reach a focus behind the lens at a greater or less distance in proportion to its convexity; the more convex the sooner they will be brought

together; the less convex the more remotely will they touch each other. A glass with a flat surface will not alter the direction of the rays of light, and if the eyes were flat, they could not receive the image of any object unless they were as large as the object itself. For instance, to see an elephant near by, the eyes would need to be as large as an elephant; and to see a building, as large as the building itself. Now, every one can see without eyes that it would be inconvenient to carry around such immense organs of vision! A concave glass refracts the rays asunder, and were the eyes to be concave, the retina would not be large enough to receive the image of an object. It will therefore be perceived that the lenses of the eyes should possess just the right degree of convexity.

Fig. 67.



CORNEA TOO FLAT.

a, the object; *b*, the cornea, too flat to converge or draw together the rays of light reflecting the image of the object sufficiently to form the focus on the retina; *c* is where the image should be formed, but *d* is where the image would fall if the retina were there to receive it. A person thus affected is called long-sighted. Most old people have this difficulty, and they can, consequently, discern objects at a distance better than they can those near by.

Nature, the greatest of architects, in the structure of the eye seldom makes mistakes. We occasionally meet with those whose eyes are too convex, and who, as a consequence, are what is called near-sighted; but when the lenses of the eye are too flat for correct vision, it may generally be regarded as the result of artificial means, such as rubbing the eyes from the nose outwardly, either in washing or in frictionizing them when irritated. The theory that it is occasioned by physical decay has been exploded by modern philosophers, and has been and can be proven to be false. John Quincy Adams, preserved the convexity and perfectness of his sight till his death (and he died at eighty-one) by pursuing from early age, the habit of frequently washing the eyes and making the manipulations in so doing, toward instead of from the bridge of the nose. There are multitudes of cases of men retaining perfect vision after the ravages of time have crippled all the other organs and faculties. Some authors claim that presbyopia, or long sight,

is often induced by age diminishing the quantity of the aqueous humor, but the fact is, that as the aqueous humor decreases in quantity, it increases in density, and, inasmuch as increase in density adds to its refractive power what may be lost by the lens becoming less convex, is made up by its denser quality, so that the perfectness of the vision is retained. It is in consequence of this humor being rarer or denser, according to its quantity, that a large and small eye of equal convexity may distinguish objects equally as well. By this explanation, too, the return of the sight may be accounted for in some old people, who, after years of long-sightedness, requiring the constant use of convex glasses, gradually regain their sight. The rubbing of the eye-balls in the wrong direction from childhood, flattens the cornea, and then sight becomes defective. But old age brings density to the aqueous humor, and the old eyes become as good as new.

From the foregoing it appears evident that all that is required to preserve the sight in perfection till death, unless accident or disease destroys the structure or paralyzes the nerves of the visual organs, is to sustain the convex form of the eye. Whether or not, simply care as to the manner and direction of manipulating it from childhood to age be sufficient to do this in all cases, is not only uncertain, but, if certain, could prove of no very great practical benefit to the present generation. Correct manipulations can neither save the convexity of the eyes of those who are just becoming long-sighted, nor restore those who are already laboring under the infirmity. To reap the benefit of such a custom in middle or advanced life, it must have been adopted in the nursery—learned with the A B C, and followed up with the persistency which characterizes habits generally. Its influence is not sufficiently marked to restore convexity to the eyes of those already beginning to experience the inconvenience of flattened lenses. They require something more potent—something which will produce more immediate results. Knowledge regarding the tendency of right and wrong manipulations, is of value to those who have not yet emerged from childhood, and parents should instruct their children according to the hints herein given. Knowledge of this kind will also be serviceable to those who regain the convexity of their organs of sight, for art appears ready to come to the rescue of those whose vision is already impaired or becoming so. We have knife-sharpeners, scissor-sharpeners and pencil-sharpeners, and why not have eye-sharpeners? Every part of the human organism is susceptible to physical impressions, except the large bones of the osseous structure. Ladies, by

wearing tight clothing about the waist, acquire small waists; the constant wearing of garters makes an indention in the flesh of the limb, which is noticeable after death; tight-fitting shoes make small feet, as is illustrated by the habits and physical characteristics of the Chinese; tight-fitting rings worn long on the finger, produce ineffaceable evidence of their having been worn; the common practice of Germans, especially in their "fader land," of carrying burdens on their heads, has undoubt-

Fig. 68.

A LADY USING THE EYE-SHARPENER.

edly something to do with the proverbial flatness of their craniums; children who get into the habit of reclining exclusively on one side, exhibit the effects in formation of the face and head; the infants of mothers who can only nurse them from one breast, are liable to grow up with a depression of that side of the face and head which came next to the breast during the months they derived their nourishment from the mother; the hair will curl if done up in papers or twisted around the curling-iron; naturally curly hair, unless we except that incorrigible sort which grows on the head of an Ethiopian, becomes straightened by combing

and brushing persistently for a time. Now, it is equally true that physical impressions may be made on the human eye, and that it can, with a suitable instrument, be restored to its proper convexity. This is no mere theory, but a fact which has been demonstrated; for an instrument of this kind has been invented, patented, and tested with success (see testimony of Daniel Parish, Esq., page 376). The preceding cut, figure 68, represents a lady in the act of applying it. The eye-cup is a conical vessel as represented by *a*, and a small orifice at ts neck connects it with the air-chamber *b*. By placing the eye-cup over the closed eye, and gently drawing out a little way, the air-tight piston *c*, the eye is lightly, but sufficiently pressed into the conical cup to give the cornea convex shape. Held a few moments in this way, and repeated daily for a time, it actually restores the convexity of the eyes, and enables those who have been compelled to adopt convex spectacles, to throw them entirely aside, and it is evident that an occasional use of it will preserve the sight unimpaired to a decrepid old age. When the shape of the eye and the manner in which it performs its office are thoroughly understood, it is difficult to conceive of a more perfect invention for preserving the natural convexity, than this. The use of it is perfectly harmless, and can in no way whatever injure the visual organs. The trouble of employing it, is nothing compared with the daily annoyance of glasses, nor is its daily use necessary after a few months, according to the length of time the eye has been flattening. Only a very few applications are necessary for those who are just beginning to think it necessary to adopt spectacles. I would most urgently commend this instrument to such persons before they become slaves to glasses, for artificial lenses are liable to be laid down anywhere, and at any place, to the most aggravating inconvenience of the wearer, while the natural lenses, if carefully preserved, are lways where they are wanted, and never left at home, or the office, or work-shop. Those who are already enslaved to the spectacle makers, will need no urging to induce them to avail themselves of the discoveries of science and art, to overcome their optical infirmity. However defective their vision, their eyes will not become tired of reading this essay, which they will peruse, from beginning to end, with eagerness and pleasure, and hail with gratitude their deliverer—a more complete illustration and description of which will be found on page 375.

CHRONIC DISEASES,

Of nearly every form, are curable in their incipient, and even in their advanced stages, if placed in the hands of a thorough and skillful practitioner who employs vegetable, electrical, hydropathic and mechanical remedies. I have, as briefly as possible, presented in this chapter a consideration of the most common chronic diseases which afflict humanity. Besides these, are others I have not named, which I am successfully treating—such as affections generally, of the eyes and ears; nervous and cutaneous diseases of all kinds; dropsy, fits, chronic inflammation of the bowels, gout, etc. While I am fully conscious that there is a time when every one must die, I believe, yea, know, that thousands are dying daily with old complaints, whose lives could be spared for years, to make relatives and friends happy, if they could but have the treatment of skillful physicians who devote their whole time, study and practice to chronic diseases.

It is, indeed, surprising to see how many are contented to be made "comfortable" by the "family doctor" year in and year out, when resorting to treatment capable of removing *cause* or *causes* as well as *effects*, would render the weekly, monthly, or semi-yearly visits of the family physician unnecessary, the mind and body of the patient vigorous instead of merely comfortable, and life a prize rather than a questionable blessing. So accustomed are doctors, in acute practice, to prescribe for merely the relief of those who call them, and, generally, so well satisfied are patients when they receive relief, however temporary, this system of "patching up" is carried into the treatment of chronic as well as acute diseases by a large majority of medical practitioners. There is, therefore, a fact which every invalid would do well to recognize and profit by, namely; *causes* must be removed as well as *effects*, or permanent relief cannot be obtained. The physician who merely seeks to modify or relieve any pain, debility, or discomfort in chronic cases, is as foolish as the gardener would be if he should go through his garden, pruning off the branches and leaves of the weeds he desired to exterminate, instead of planting his agricultural implements at their roots and removing them, root and branch, from the soil they impoverish. All chronic diseases have some deep-seated *cause*, and the pains and discomforts are but the effects of that cause. In many complicated cases, there are not only causes but *sub-causes*, or in other words, one or more causes may produce certain affections which will produce still other disturbances. Now, in all

these cases it is necessary, in order to obtain a perfect and unconditional discharge from the tyrant disease, to seek out all these causes and sub-causes, and apply appropriate remedies. In view of these considerations, I would say to the victim of disease, employ your family physician when you are on your back if you please, but when you get on your feet again, and your physical troubles linger for weeks, months or years, place yourself under the care of one who gives exclusive attention to chronic diseases, and who, by a thorough and nutritious system of medication goes down to the very root of the whole matter.

CHAPTER VI.

Treatment of Disease.

In this chapter of practical matter, will be thrown together without any waste of labor in classification, suggestions of such importance to the invalid reader, that it is hoped every sentence will be perused with care and reflection. There are many truths, medical and moral, which the mists of ignorance, or popular prejudice, partly or wholly, shut out from the mental vision, and, inasmuch as the great mass of people know more of every thing else than they do of that which pertains to the laws of physical and spiritual health and life, and to a rational art of healing, it is not surprising that many dose themselves to death with their own uncertain concoctions; that thousands become the dupes of wicked charlatans; that tens of thousands allow themselves to become sewers for patent nostrums; and that millions are the patrons of a so-called scientific school of medicine, which cures (?) the sick by making them life-long cripples. I trust that a candid perusal of this chapter will serve to dispel these mists or what might be properly called medical and moral fogs, for no harm can possibly result from an effort to impress upon the public mind, the necessity of doing for the invalid the best that can be done at the very outset, instead of experimenting from week to week, and month to month, with something or somebody which or whom it is thought "will do," until the disease-burdened body nearly sinks into the grave embalmed with a thousand drugs. With this brief prologue, I will pass to the presentation of matter appropriate for this chapter.

EVERYBODY HIS OWN DOCTOR.

This is an attractive motto which graces the title-page, or gleams from the preface of many a medical work gotten up for the patronage of a too credulous public. It would be no less pleasing to the author than to the reader if, in this volume, instructions could be given, which

would enable every invalid who peruses its pages, to treat his or her own case without the aid of a physician. Such a task, notwithstanding the assumptions of many to the contrary, would be simply impossible, as every one of genuine good sense must perceive. So much depends upon the constitution or the temperament of the sick man or woman (see page 58), only one who makes these idiosyncrasies his constant study, is capable of prescribing successfully, especially in the thousand of cases in which there is a variety of blendings or mixtures of temperaments.

If my system of practice were at all similar to that of physicians who make calomel or some other drug a favorite remedy for every disease, with only an occasional deviation, the task of instructing non-professional readers in the healing art—if art, in that case, it could be called —would not only be possible but easy; or if my system was like that of medical men who have a *specific* for every ill, and who would treat a dozen of patients afflicted with one kind of disease, in precisely the same way, then would it be but a pleasant pastime to sit down and instruct the world's sufferers just how to doctor themselves. But the attentive reader cannot have failed to perceive that I entirely disapprove of treating the sick on this "hit or miss" principle, and insist on the necessity of prescribing, not only for disease, but for constitutions or temperaments. Never, yet, has there been written for popular use, medical books in which prescriptions or recipes were given for the ostensible purpose of enabling the sick to treat their own diseases, that did not prove failures, and in a majority of cases, worse than failures, for the reason that they lead people requiring the best of medical skill and experience, to tamper with themselves till their diseases became incurable, or to employ active remedies (the nature of which they did not fully understand) when the complications contraindicated their employment.

The chief aims of the author in placing this work before the public, are to give publicity to a volume of original ideas which he believes will be of advantage to the world; to exhibit to the reader the *causes* of disease and social unhappiness, in order that the rocks and shoals which lie hidden in the turbid sea of life may be avoided; to impart to those possessing ordinary intuition, the ability to judge wisely of the merits of the various systems of therapeutics in vogue, and to put all on their guard against—not only the unjust prejudices and old fogyism of the "regular practitioner," but the impositions of the empiric. If I were writing this book for the exclusive use and benefit

of the medical profession, I would need to make it voluminous, expensive, and not a little obscure to the non-professional reader, for lengthy details in regard to the treatment of every case, with its many possible peculiarities and complications would have to be scrupulously given, the comprehension and appreciation of which, would require the possession on the part of the reader, of extensive pathological knowledge. I may yet make such a contribution to medical literature, but I doubt my ability to produce a work of this description, which would enable readers of little or no medical attainments, to act as their own physicians. Doctors will continue to be "necessary evils" till mankind for several generations, shall have strictly obeyed the laws of life and health; or, in other words, until disease shall have become an annoyer and destroyer of only those who have passed temperately through the spring and summer of life, and entered the closing winter of their earthly career; or, on the other hand, they will have to be endured until physiology, pathology, materia-medica, hygiene, and surgery become household sciences, taught, not only in all institutions of learning, but in the nursery and family; and then, as "practice makes perfect" in every art, profession, or trade, an invalid laboring under any difficult disease, would rather intrust his case in the hands of one whose sole labors are devoted to the relief of the sick, than in the hands of an artist, a lawyer, a parson, a merchant, a mechanic or a farmer, however devoted a student he may have been in matters pertaining to the healing art. If a man possesses the necessary attainments and natural gifts to practice medicine successfully, every day's experience adds to his skill; every case upon which he attends, the better prepares him for successfully managing the next, and while his success extends his practice, his practice, in turn, augments his skill. "Every man to his trade," is an old adage, and in no department of life does it apply with greater force than to the physician.

None but those who are engaged in the practice of medicine with eyes and ears open, can realize how complicated are nearly all cases of chronic disease. Seldom is a single organ or function involved; several affections usually co-exist, each of which aggravates the other, and any one remedy, which is favorable to the cure of one, oftentimes gives disturbance to the rest. In no such case can a single prescription affect, favorably, these combinations; nor can directions be laid down in a popular work, which will enable the invalid reader to go understandingly at work to concoct a set of prescriptions adapted to his particular case. But suppose such a plan practicable, then the

adulterations practiced in drugs and medicines, would put to hazard the reputation of a popular author (see pages 76, 77).

In the first edition of this work, I proposed to furnish written prescriptions on the reception of a full description of a case, but I soon found myself compelled to abolish this plan, for, notwithstanding my almost uniform success in the treatment of cases wherein I prepared and supplied medicines myself, those to whom I furnished written prescriptions did poorly indeed. This was chiefly owing to the fact that drug and botanic stores, almost everywhere, are more or less stocked with stale and adulterated herbs and roots, which are worthless, in consequence of having been kept too long, or mixed with inferior species; or with those which had been gathered at the wrong season of the year, before their medicinal properties had matured, or after the changes of season had destroyed them (see pages 78–79). Many persons whom I have employed at the proper seasons of the year to collect such things as I need in my laboratory, have made it their business out of season to gather for the market. Aside from these considerations, many cases require electricity in some form.

Inasmuch as many who read the common sense theories advanced in this book, will desire to avail themselves of the system of treatment they naturally suggest, I will say that if invalids at home or abroad (see questions to invalids) will give me the opportunity of doing for them as each individual case seems to require, I can treat such as I may be willing to undertake with confidence of success. Invalids under my treatment are not restricted in diet or exercise; and those who are able to pursue their business, can do so without any interruption from the effects of the medicines, which will only the better enable them to follow successfully their vocations. This, to the business man, is an important consideration. Such are the debilitating effects of most things bearing the name of medicine, it is not singular that those who have a business or profession requiring their personal supervision, feel that they must live and suffer on till death ends their infirmities, rather than adopt any system of medication. My mode of treatment does away with this objection, for I do not "tear down to build up," nor are the medicines I administer usually unpleasant to the taste. I give *nutritious* instead of *drug* treatment.

DIETETICS.

With regard to dietetics, I should perhaps remark that I do not mean by any thing said in the closing portion of the foregoing essay, that invalids can always eat just what a vitiated appetite may call for without injurious consequences. There are many kinds of food which only the strongest stomachs can digest, and these, it is palpable to every mind, should be avoided by the invalid whether the digestive organs are impaired or not. But it would hardly seem necessary for a physician to advise an invalid to abstain from warm bread, mince-pies, rich pastries of every kind, pork, cucumbers, boiled cabbage, and such edibles as are doubtfully wholesome for healthy persons. My injunction to the sick is—*eat only such food as seems to agree with you*, and *that which distresses you, avoid.* Perhaps some dyspeptic will say: "Why, Doctor, all kinds of food distress me." To such I would reply, you know something of the digestible qualities of the food set before you, and from it you must select that which is the most nutritious, and inflicts on your stomach the least disturbance. This is a good rule to observe, and may beneficially take the place of those starve-to-death dietetic prescriptions so often given by physicians of Grahamite proclivities. The system tottering under the burden of chronic disorders, much more than the healthy body, needs nutrition, and nothing can be more foolish than to weaken the healing powers of nature by the adoption of a system of starvation.

CLEAR CONSCIENCE BETTER THAN A PETTED STOMACH.

It seems to me that those physicians who direct so particularly in regard to the taking care of the stomach, would do a better thing if they would take the same amount of pains to impress on those under their treatment the necessity of keeping the conscience clear. An overloaded stomach will not half so much depress the physical health as a sin-loaded conscience. I have already spoken in various portions of this book, of the influence of the mind on the body, and it may be set down as an absolute fact, that if a sick man or woman is daily doing things which he or she believes to be wrong, the regrets which follow cannot fail to seriously aggravate whatever physical trouble may exist, while cheerfulness, or, at least, an undisturbed mind, greatly aids medicaments in affecting cures. If we may "laugh and grow fat," it is reasonable to suppose that by being at peace with ourselves,

we may with proper remedies to assist nature, find relief from bodily infirmities, if curable at all.

I may be asked—"What do you mean by a sin-loaded conscience?" I answer, a conscience harassed by the commission of acts which you believe or know to be wrong. I do not intend, in this place or in any other, to don the robe of the theologian. I am a physiologist and physician, very little acquainted with theology. This volume will undoubtedly fall into the hands of Protestants, Catholics, Swedenborgians, Jews, Mormons, Deists, Atheists, Pantheists, and it may possibly be read by Mahometans, Simonians, and Supralapsarians, and may not impossibly find readers among the Jumpers, Whippers, Diggers, and others of the more eccentric class of religionists. Hence it would be useless to require my patients to conform to any particular standard of morals or creed in religion; but I can, without questioning the correctness of any one's religious opinions, insist on their living up fully to their highest conceptions of right; to their living at peace with themselves and the inward monitor. Though an act may not, in itself, be wrong, it should not be committed by one who *thinks* it wrong, for not only does unhappiness follow in the wake of such conduct, but the effect on the moral sense is precisely as bad as if it were an actual wrong, and it opens the way for the perpetration of the latter. In other words, persons may become heedless of the dictates of conscience by doing what they think they ought not to do, and in the end, actual as well as supposed sins are committed, while in either case remorse usually succeeds, and depresses the physical energies no less than the spiritual complacency. It is therefore properly within the province of a physician to insist on correct moral deportment on the part of the patient, as well as to direct in regard to diet, doses, etc.

I am often told by invalids consulting me, that they are distressed with doubts on religious subjects. Now, there is no good reason why any person should keep his mind in painful commotion because he cannot square his faith and belief with that of his neighbor. So long as people's brains differ in shape and size, so long will it be difficult for them to think alike, and no one should allow himself to become distressed because he cannot put on his neighbor's opinions any more than he should weep because he cannot put on his neighbor's hat, coat and boots. To all such I say, live true to yourselves and the light you possess. Do just as you think you ought to do. Cultivate your understanding and your conscience, and be guided by both. If, at any

time you doubt the correctness of any opinion or creed you have long cherished, investigate cheerfully and carefully, and—if a Christian—prayerfully, but not painfully and impatiently; then leave the result with a merciful Providence.

It is really more important that the mind of a patient should be free from distress than that the stomach should be free from the presence of unwholesome food. A sin-loaded conscience has brought many a stalwart man upon a sick-bed, and it is useless to try to conceal the fact that it preys heavily on the remaining energies of the sick. An essay might well have found place in the second chapter of this book, showing the effects of the violations of the moral sense on the nervous and vascular systems, for as the inner suffers with the outer man by the violation of physical laws, so does the outer suffer with the inner man by the violation of moral laws.

With this view of the matter, I would say to my patients, be just as particular in not overloading or offending your conscience as in not overloading or offending your stomachs. I cannot tell you just what you can or must believe; neither can I tell you just what you can or must eat. I can confidently assure you that you must not lie, cheat, steal, nor murder; that you should not eat pork, warm bread, rich pastries, nor shingle nails; but there are thousands of practices which you may or may not pursue, according to the condition of your consciences and stomachs, that may or may not inflict physical pain. As your physician—not your parson—I advise you *to do nothing you believe to be wrong; eat nothing which seems to distress you.* So far as a life of honesty is concerned, I would advise no one to live so, merely because honesty is the best policy. This object is too grovelling—too mean. It beclouds and finally drenches out an ennobling attribute—the soul of honor. Horticulturists who look at the delicious fruit protruding singly or in clusters from out the rich foliage of trees and shrubs with merely a calculating eye—estimating how many bushel-measures it will fill, and how much per bushel it will bring in the narket, do not draw inspiration and moral and physical elevation from the beauty and fragrance which delight the senses of one who sees in it the generosity and infinite creative power of a Supreme Father. So with business-men, and everybody who esteem honesty as the best policy, and pursue it simply for the purpose of gathering up more dollars and cents; they do not experience those morally elevating and health-inspiring emotions which thrill the bosoms of those who live honorably because they love their fellow men and the Father

of all—because they delight in dealing justly with all mankind, and aspire to perfect manhood. Depend upon it there is a mine of health which reveals itself to all who live true to God, true to humanity, and true to themselves.

INVALIDS MUST NOT BE IMPATIENT.

Time is required to cure chronic diseases, and nothing is gained (but rather something is lost) by the use of what are termed immediate remedies. Ignorance of the fact, or a disregard of it, is the cause of failure with many (so-called) skillful practitioners, who, knowing the impatience of the invalid to get well at once, try to cure in a week or two, diseases which have been for months and perhaps years, accumulating in the system. My injunction is, have *patience*—take *time*—and I will give to those who place themselves under my care, treatment which will cure *causes* as well as *effects*, and at the same time, be of no more trouble than the regular meals and sleep, while it works silently in the system, arousing the healing power of nature, and aiding it in regulating every diseased condition of the mental or physical organization.

QUESTIONS TO INVALIDS.

Those at a distance, who wish to avail themselves of my services, need not hesitate because of their inability to visit me. I have treated successfully, patients in all the states and settled territories, and British and Spanish provinces of North America. Send answers to the following questions, and I can judge correctly of your diseases and temperaments. Those who prefer to indemnify me for my time and trouble in examining their cases, can inclose a fee of one dollar, and those who do not, need simply inclose a letter-stamp with which to prepay reply.

Questions.—1st. What the color of your hair and eyes, and what the complexion? 2d. Were your parents long or short lived, and does there appear to be any hereditary disease in your family? 3d. Do you feel any dizzy sensations in the head—any pains, neuralgic or otherwise, in front, back, or sides of the head, or headache—do you suspect catarrh? 4th. Are you troubled with weak or inflamed eyes, or any other disease of those organs? 5th. Is your hearing good—

any roaring in the ears—discharges from ears—excess of wax or dryness—earache? 6th. Is the tongue coated, if so, is it yellow; is it vividly red on the tip and edge, or down the center or over the whole surface; is it white and velvety; is it red at the lips, becoming brown, dry and glazed; is it black? 7th. Have you any tickling in the throat —any soreness—any tubercles, ulcers or canker? 8th. Have you any external sores, or pimples or tumors on the neck? 9th. Are you hoarse—voice weak? 10th. Have you any tenderness or soreness about the lungs? have you raised blood? 11th. Do you cough, and if so, when most, morning or night—is it a dry, hacking cough or loose—constantly a little, or very severe by fits? do you have night-sweats? chills? hectic flush or fever? swelling of the feet and ancles? 12th. Do you raise much, and if so, what color—is it mixed with blood—will it rise or sink in water—is it salt, fresh or sweet to the taste? 13th. Are you troubled with hard or rapid beating or palpitation of the heart—pains in or about the region of the heart—soreness on pressing on the left chest over the heart—stoppage of the heart—blind staggers—sleeplessness—drowsiness—frightful dreams? 14th. Is your appetite good—any soreness of stomach—wind in stomach—trembling feeling in stomach—sourness of stomach—nausea in the stomach—empty or all-gone feeling in stomach? 15th. Are your bowels loose or costive—are they bloated—are they sore on pressure? Have you piles? if so, blind or bleeding—internal or external? 16th. Is there any enlargement of the right side—any pain in right or left sides—shoulders or elsewhere? 17th. If a female, are you married or single—are you troubled with leucorrhœa or whites —have you a bearing-down feeling of the womb or abdomen—are your courses regular, painful, too slight or too profuse—if married, have you had any children—are they healthy? If no children, are you barren? how many years married? If barren, describe the persons of both husband and wife in answer to questions 1st and 24th, and any other information you may think of, having a bearing in the case. 18th. Do you have weakness or pain in the lower part of the back—is your water high-colored—is it thick or limpid—does it scald—is it bloody—is the sediment red or white—have you had any venereal disease? if a male, have you seminal emissions—if so, at night or during the day—or both—how often? 19th. Have you ever had any external eruption—erysipelas, tumors—if tumors, are they about the belly—groin—thigh—or where? do they disappear on lying down or at any time? if so, when? do they protrude worse when you cough,

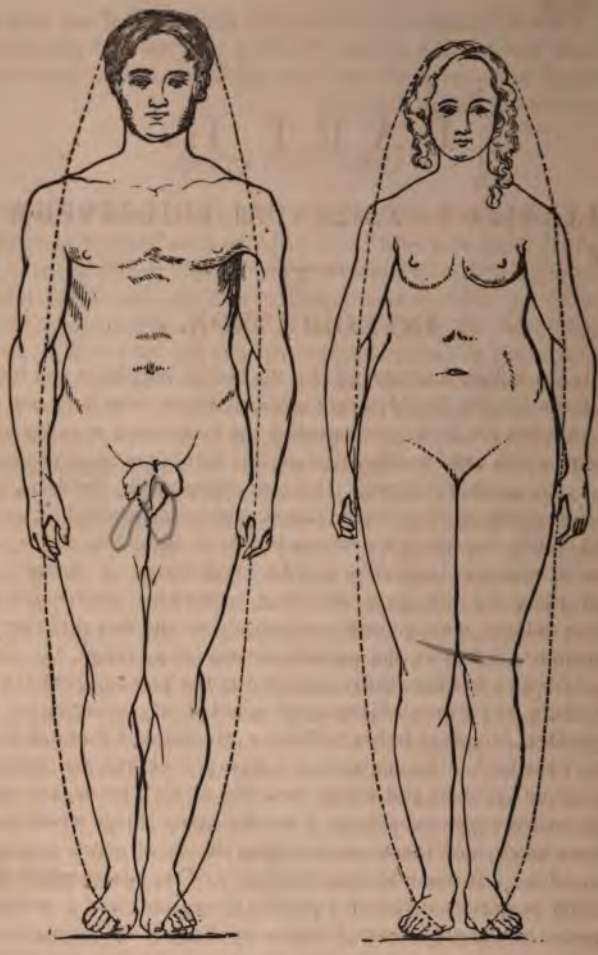
sneeze or strain? Ulcers, abscesses or cancer? 20th. Are you subject to fits? are hands and feet cold? 21st. Have you any trouble of mind —grief for the loss of friends—matrimonial unhappiness—jealousy—doubts or distress of mind on religious subjects? 22d. Do you reside in a dry, bracing atmosphere, or in one that is damp and foggy—on high or low ground? 23d. What are your habits—do you use ardent spirits —tobacco—tea and coffee—opium—are you regular to bed—how many hours do you take for sleep—what time do you rise—do you use much animal food—much vegetable—do you bathe, if so, how often—is the water you use hard or soft? 24th. What is your age—height—weight —how much do you measure round the chest just under the arms—what the measure round the arm, about midway between the elbow and shoulder—what the measure round the right thigh—what round the calf of the right limb?

Answers to the above questions will enable me to judge nearly, if not quite as correctly, of the nature and extent of a disease as a personal examination. In answering, correspondents need not say they are *not* troubled with this, that, or the other difficulty, but *mention only the symptoms they have*, as they look over the questions one by one. Correspondents are also requested not to simply say yes or no, after putting down the figures before each set of questions, but state the symptoms fully. Many of the questions pertaining to complexion, height, weight, measure, etc., may appear, at first sight, trifling, but they are of *first importance*, because on answers to these I must depend in forming my opinion of the *temperament* of one whom I am not permitted to see; therefore, no one should pass over them in describing his or her case. When perfectly convenient to do so, in addition to answers to the questions, a daguerreotype, ambrotype, or photograph might be sent with the letter. Many invalids at a distance pursue this plan in consulting me, and, although it is by no means important, something may occasionally be gained by the patient so doing. All may safely confide in the author in describing fully and frankly a case, or giving the result of treatment. I am daily in receipt of letters from patients giving the most gratifying accounts of the effects experienced in pursuing my advice, and which, if published, would greatly redound to my credit, but I never publish any letter or parts of letters with the name of the author, unless his or her consent has been expressly given, and even then, but seldom, as the good results of my practice are becoming too well known to need any evidences of this kind. I have, however, appended in the closing pages of this

work a few evidences of my success for the benefit of any who may not have heard of the success attending my system of practice, and additional testimonials will be furnished to those who desire them. My address is given on page 374.

WARRANTING CURES.

The question is often asked me: "Will you warrant a cure?" In order that those who read these pages may understand my position on this point without interrogating me, I reply to this question, emphatically *no*. Invalids must remember that they have as much to do, and often more, in effecting cures in their cases, than the physician. Medicines must be used with *regularity*, and general directions strictly observed to insure success, and it is not reasonable, therefore, to ask the physician to shoulder the whole responsibility. However skillful a physician may be—however adapted his medicines to any particular case—however wise his hygienic advice—unless the patient does his or her part faithfully, treatment never so appropriate—never so skillful—may prove abortive. Those who are disposed to employ me, may rest assured of one thing, viz.: that I shall not hazard my reputation, gained at the expense of close application and years of toil, by giving any unwarranted encouragement or uncandid diagnosis. The course I have pursued has been strictly in accordance with this principle, and I shall not, under any circumstances, in the future, pursue any other. I may not, in *all* cases, be as successful as I at first expect, but I will guarantee that I will cure as large a per-centage of my patients after they have been given up by old-school practitioners, as the most successful of allopathic doctors do in treating cases *first presented to them*, many of which are neither difficult nor complicated. Nearly all becoming my patients, have been under the treatment of six to twenty different physicians before employing my services, and I now invite the most obstinate and intractable cases to consult me, for it is my ambition to raise the most hopeless cases from the grasp of disease. Ordinary cases can be cured by ordinary remedies. Every town must have its physicians; as before remarked, they are "necessary evils," and I will not utter a word for their disparagement, if they do not poison their patients with pernicious drugs and mineral preparations. I only invite the consultations of those who have failed to find relief under their treatment. In such cases, I find in disease a foe I delight to combat, and, with God's aid, conquer.



MALE. FEMALE.

"So God created man in His own image; in the image of God created He him; male and female created He them. And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it." [Gen. 1, 27, 28.]

PART II.

MARRIAGE AND SEXUAL PHILOSOPHY.

INTRODUCTION.

Such is the influence of marriage on the health, happiness and longevity of the human family, every medical writer who does not put forth an effort for the improvement of the institution, is guilty of an omission which reflects discredit upon his faithfulness as a physician and physiological instructor. However antagonistic, eccentric, conservative or radical may be the various opinions of medical men, each should boldly express his sentiments, throw them into the crystal palace of practical literature, and let their merits or demerits be passed upon by the great awarding committee—*public opinion*. There is nothing more glaringly palpable than the fact that there is an enormous defect in the present system of marriage, the remedying of which has been sadly neglected in the physiological "dark ages" from which the civilized world is but slowly emerging.

Says Mrs. Jameson, in her "Winter Studies and Summer Rambles in Canada"—"In conversing with a prelate and the missionaries on the spiritual and moral condition of his diocese, and these newly settled regions in general, I learned many things which interested me much; and there was one thing discussed which especially surprised me. It was said that *two-thirds of the misery which came under the immediate notice of a popular clergyman, and to which he was called to minister, arose from the infelicity of the conjugal relations;* there was no question here of open immorality and discord, but simply of *infelicity and unfitness*. The same thing has been brought before me in *every country, every society*, in which I have been a sojourner and an observer; but I did not look to find it *so broadly placed before me here in America*, where the state of morals, as regards the two sexes, is comparatively pure; where the marriages

are early, where conditions are equal, where the means of subsistence are abundant, where the women are much petted and considered by the men." By this we see that matrimonial unhappiness is so almost universal as not to escape the notice of clergymen, whose profession affords less facilities for ascertaining the true conjugal condition of all classes of people, religious and irreligious, than that of the physician. But it is not necessary in this place to adduce facts and arguments to prove that the world is full of connubial infelicity. There is no community in which there does not exist indubitable evidences of it. What we want is a remedy.

Many bold spirits, who have tasted the bitterest dregs of matrimonial infelicity, are ready and restlessly impatient to overthrow entirely the sacred institution of marriage, and inaugurate a system of omnigamy, leaving the sexes without legal restraint, and to the dictates of their own individual impulses in the gratification of their amative desires, and the perpetuation of the race. Others are as zealously advocating lenient divorce laws; so lenient, indeed, as to allow men and women to marry and divorce at pleasure, until a congenial companionship can be formed. Such a system is obviously more omnigamic than monogamic, and even if expedient (which, in the present condition of public morals, I deny,) could not receive the sanction of this conservative age. Others, still, there are, who, while they deplore the wide-spread wretchedness existing in matrimonial life, and perhaps experience its bitterness in a slight or great degree, occupy neutral ground, feeling an undefinable reverence for the present system, and still ready to adopt any new one which may be suggested, compatible with religion and social good order. And there is yet another class, more fortunate than the rest, who have accidentally formed a happy matrimonial alliance, or something approaching thereto, a majority of whom advocate rigid divorce laws, and egotistically imagine that all the matrimonial unhappiness in the world is only the result of recklessness on the part of those entering into the contract of marriage. They consider parties to such alliances deserving of all the misery they have brought upon themselves, and selfishly fold their conservative arms, only to move them in defence of existing laws or the enactment of still stricter ones. Such men, however well versed in law and theology, are seldom physiologists, and are unwilling to open their eyes upon the disastrous effects which unhappy marriages are entailing upon the human race, by producing progeny and progeny's progeny, sour in temper, unbal

anced in mind, and sickly in body. They are surprised at the increase of crime and the decrease of longevity, and wisely attribute the causes to every other than the real ones. The thought never strikes them that if marriage could only be properly regulated, we might hope, after a season, to rid the country of rogues by the prison and gallows, and that, so long as law allows such incongruous unions to take place between the sexes, we shall ever have need of iron bars and hempen rope.

Between this extreme and the first one mentioned, I shall guide my bark of reform, having, as I conceive, discovered the true plan for securing happy marriages, without resorting to the experimental system proposed by those reformers who think men and women should have the privilege of marrying and divorcing at pleasure, until the congenial counterpart is found. To the unfolding of this plan, and the investigation of subjects interesting and useful to both married and single, Part Second will be devoted.

CHAPTER I.

Marriage, as it is, in Barbarism and Civilization.

Before offering any suggestions upon the necessity of reformatory measures for the regulation of marriage, it will be both interesting and improving to look at the institution of marriage as it actually exists in the world, and contrast the customs of barbarous countries with those which enjoy the advantages of civilization. Let us first take a "bird's-eye glimpse" of

MARRIAGE IN THE OLD WORLD.

In Asiatic Russia, the Calmuck Tartar seizes the woman of his choice, carries her off on horseback, and if successful in keeping her over night, she becomes his wife. The Tungoose Tartars try races on horse-back for their wives. The lady has a good start, and if her pursuer overtakes her, she must become his wife. The ladies are distinguished for their equestrian accomplishments, and are seldom caught unless they desire to be. "Among the Crim Tartars," remarks Goodrich, "courtship and marriage are encumbered with ceremonies. The parties seldom see each other till the ceremony, and the contract is made with the heads of the tribe. At the period of the wedding, the villages near are feasted for several days. The bride is bound to show every symptom of reluctance. There is a contest between the matrons and girls for her possession. The priest asks the bride if she consents, and on the affirmative, blesses the couple in the name of the prophet and retires. There is great ceremony and cavalcade when the bride is carried to her future home. She is conveyed in a close carriage, under the care of her brothers, while the bridegroom takes a humble station in the procession, dressed in his worst apparel and badly mounted. A fine horse is led for him by a friend, who receives from the mother of the bride a present of value, as a shawl."

Among the Siberians, of one tribe, it is said "the wife pulls off her husband's boots, as a sign of her obedience." In another, "the bride's father presents the bridegroom with a whip, with which he is instructed to discipline her as often as he finds occasion. In another, "the bride is carried on a mat at night to the bridegroom, with the exclamation 'There, wolf, take thy lamb!'"

The Chinese purchase their wives, but a "celestial" is allowed but one by law. To bring home an additional one subjects the offender to eighty blows of the bamboo. Many prefer this punishment to monogamy, and suffer its repeated infliction in order to gratify their polygamic propensities. The secondary wives, however, are said to have no rights whatsoever. They are entirely at the mercy of their "liege lords," who can treat them as they please, and put them away on the forfeiture of the purchase money. A celestial is forbidden to marry during the period set apart for mourning the death of father or mother. He is also forbidden to marry a person bearing the same name as himself, or a musician, or an actor of any kind, or a widow whose husband had distinguished himself, or one who has been convicted of any crime. The bamboo is the penalty attached to all violations of this law. Those in matrimony who cannot agree are allowed to separate. Divorces are also granted for the following causes: theft, a jealous temper, sterility, immorality, contempt of the husband's father or mother, propensity to slander and habitual ill health.

The Japanese, who somewhat resemble the Chinese physically, differ considerably from them in their customs. Although they do not maintain the monogamic system of marriage, the women are educated with as much care as the men. The letters of travellers and the visit of "Tommy" have given us a partial insight into the social affairs of this singular people.

They are, it is remarked by a recent traveller among them, allowed one legal wife and as many second ones as their means will permit. The law regulates the matter in this way; when a girl's relatives are too poor to support her, she may become a second wife instead of a beggar. But the legal wife adopts all the children. It is therefore a wise Japanese who knows his own mother! The nominal emperor has twelve legal wives and as many second ones as he chooses. Many of the second wives of the Japanese are taken from among the women who serve tea at the public gardens, (which are numerous,) and it is said of these women that they are, without exception, "loose." Persons of this character, however, are not subject to the prejudices of the same class in this country, but frequently contract honorable marriage. The men appreciate the ladies, and make companions rather than slaves of them. The married ladies are obliged to shave off their eyebrows and blacken their teeth with a preparation of urine, filings of iron, and sakee. Before marriage they dye their lips with rouge called "bing," producing, when lightly

applied, a bright red color, but, when laid on thick, a deep violet hue, which tint is most prized. It is said that "marriage is performed in the temple; the bride lights a torch at the altar, and the bridegroom another at hers, which constitutes the ceremony."

In the Birman empire, polygamy is prohibited, but a man may have as many concubines as he can comfortably support. Wives are sold into concubinage or prostitution on actions of debt, if the husband has not the means to liquidate.

A JAPANESE LADY.

In Hindostan, marriage takes place at eleven, or as soon after as the parties arrive at puberty, the arrangements for which are usually conducted by the parents, who, on the bride's side, expect and generally receive expensive presents as payment for the wife furnished.

In the west of Hindostan, on the coast of Malabar, women are allowed a plurality of husbands. A traveler remarks that "they are a martial people and possess a great deal of the spirit of knight errantry: insomuch that their tournaments frequently end in blood

The husbands are not exactly tenants in common in regard to her favors. Each enjoys her attentions exclusively at appointed periods, according to her inclinations, and no one is allowed to enter her apartments while the arms of a copartner in domestic affairs are over the door. She resides at the domicil of her friends, and, when she becomes a mother, nominates a father in each case, and he is bound to maintain the child."

"In Thibet," remarks a writer, "one woman becomes the wife of a whole family of brothers; and this custom prevails in all classes of society. The oldest brother chooses the bride and consummates the family marriage. Travelers relate instances of five or six brothers living under one roof, in this manner, in great harmony." The women are active and industrious, and are said to "enjoy a higher consideration than in other oriental countries."

In Abyssinia, a kind of "free love" system prevails, parties in marriage coming together and separating at pleasure. Polygamy is also practiced, and the secular clergy are permitted to marry once.

In the Barbary States, marriage negotiations are conducted entirely by parents, the candidates for matrimony not seeing each other, in many cases, before the bargain has been agreed upon. The marriage is attended with rejoicing, and the "bride is carried home in a cage, placed on a mule, attended with music. Divorce is easy for both parties, and the wife can dissolve the contract if her husband curses her more than twice. For the first curse he must pay her eighty ducats, and for her second a rich dress. A man may have four wives and as many concubines as he chooses. The Jews in Barbary are numerous and much oppressed. The house of a Jew and all its sacred relations, is open to every Moor who chooses to violate it." The Moors sell their daughters in marriage, and the whole negotiation is conducted by the parents, without respect to the wishes of the one most interested.

In Central Africa polygamy is universal. Mr. Bowen, the Baptist missionary there, gives the following account of their customs: "Kings, nobles and rich men have large numbers of wives, and even the common people have two or three. No woman, therefore, pretty or ugly, is prevented from being married.

"Courtship is carried on by female relatives, and either sex has the right to propose. Betrothment is sealed by the payment of forty dollars, or thereabouts, by the expecting husband to the mother of the girl Conventional modesty forbids her to speak to him or to see

him, if it can be avoided. Men have the pleasure of divorcing their wives; they labor for and support themselves, having no claim on their husband's property. If divorced for adultery, she or her relatives are obliged to pay the dowry settled on her. During the marriage, the woman has exclusive right to her earnings, and is sole owner of her property.

A CENTRAL AFRICAN.

"When the man dies, the eldest son inherits the house and all the wives, except his own mother. Yoruba women are not prolific, and barrenness is not uncommon, but is a disgrace."

Among the Krue people, according to the African Repository, "the price of a wife is usually three cows, a goat, a sheep, and a few arti

cles of crockery-ware, or brass rods, the whole of which would scarcely exceed twenty dollars. The woman is always bargained away for life, and at the decease of her husband passes to his brother or some other connection, being deemed transferable property. If, however, she is ill-treated, she may return to her family; though to guard against this provision being abused, they are required to restore twice as much as they received for her. Each woman is the mistress of her own household, and is not liable to be interfered with by any of her co-wives."

In Western Africa, the marriage customs are equally peculiar. The king of Ashantee has three thousand three hundred and thirty-three wives, only a few hundred of whom are attached to the palace. When the wives of the king go out, they are escorted by an army of boys with whips, who cudgel every body they see in the streets, lest some one should happen to get a glimpse of the ladies. The Mahometans generally have four wives, while the non-professors frequently have a great number. It is against the law to praise another man's wife! "Conjugal disputes," says Goodrich, "are sometimes settled by the interference of *Mumbo Jumbo*, a mysterious personage, who seems to be in the interest of the husband;—his interposition is decisive. He is an incarnate bugbear, dressed in the barks of trees, and sometimes surmised to be the husband himself. Mumbo Jumbo comes at evening, and goes to the *Bentang* tree, where the whole village assembles, though the females are the least pleased, for no one knows to whom the visit is intended. At about midnight Mumbo fixes upon the offender, who is stripped, tied to a tree, and scourged."

In Dahomey, the king is allowed about *three thousand wives*, which are selected by him at an annual assemblage of all the girls in the kingdom. Polygamy is practiced also by his subjects, and adultery is punishable with death; still, a woman may leave her husband at any time and take another, and the husband is under no greater restraint to adhere to his wife. The women do the work and the men do the—"loafing."

In Congo, polygamy and promiscuity are indulged in to an unlimited extent.

Marriages among the Mandingoes are characterized with drinking, shouting, firing guns, and other boisterous demonstrations. "The bride is carried to the house of her husband, on the shoulders of an old woman, who walks all the way upon mats spread before her."

In Egypt, marriage contracts are made by the friends of the parties, who do not often see each other till the ceremony. The females are married at fifteen, and sometimes at an earlier age Plurality of wives is both legal and fashionable, and the ladies are kept veiled and secluded, as in other Mahometan countries. They hide their faces and display their bosoms. It is considered great impudence to inquire of a husband regarding the health of his wives.

In New Holland, two of the front teeth of the female are knocked out before she is given to her lover. On her presentation, the latter throws a kangaroo skin over her shoulders, spits in her face, paints her with stripes of various colors, compels her to carry his bag of provisions to his hut. If she goes too slow to suit his liege lordship, he gives her a few kicks.

In the more civilized portions of the old world, are found both the monogamic and polygamic systems of marriage, and in the *customs* of the people the latter prevails to a greater extent than is guaranteed by their laws.

In England, the monogamic system of marriage, as in our own country, is professedly established by law, but public opinion tacitly sustains polygamy for husbands, as may be reasonably inferred from her new divorce law, which denies the wife a decree of divorce for adultery (unless incestuous) on the part of the husband, but entitles the husband to such a decree for adulterous acts of any kind on the part of the wife! As there are several noticeable features in this bill, I will copy a condensation of it as given in the Tribune:

"*First*: A wife deserted by her husband may, at any time after such desertion, apply for and obtain an order to protect against her husband, or his creditors, or any body claiming under him, any property she may acquire by her own industry, or which she may otherwise become possessed of, including, of course, gifts and inheritances. Such an order will give her the same power over the protected property as though she were unmarried, and will carry with it the right of suing and being sued, and making contracts in her own name; but it will not discharge the husband from his liability to be sued for necessaries furnished to his wife, nor even for torts committed by her. To bring this remedy within the reach of all who may need it, the power to grant such order is extended to the Metropolitan Police Magistrates, and in the country to Justices of

the Peace in petty sessions. Any party undertaking to seize or hold the property protected by such an order, is liable to a suit for its restoration with damages added of double its value.

AN ENGLISH LADY.

"*Second*: Desertion for two years and upward, adultery or cruelty (which latter must, however, be of a kind to excite apprehension of personal safety), affords ground for what is called in this act judicial separation, which differs from a divorce in this: first, that it may be

terminated at any time by the coming together of the parties, and secondly, that they cannot marry any body else. This remedy is open to the husband, but it is intended mainly for the wife, to whom, when it is granted on her application, a provision for her maintenance, technically called alimony, is to be assigned by the court payable by the husband, who is discharged by it from all legal liability for the wife, except that if he does not pay the alimony he may be sued for necessaries.—The Court granting these separations is authorized to make such provision as it may judge proper as to the custody and maintenance of the children. This remedy is also brought within convenient reach by the authority given to the Judges of Assize—the ordinary tribunal for the trial of jury cases—to entertain and act upon petitions for it.

"*Third*: We come now to a remedy, that of the dissolution of marriage, for which the act makes a new court, to be composed of the Lord Chancellor, the Chief Justice and the eldest puisne Judge of the three common law courts, and of the Judge of a new Court of Probate, established at this same session of Parliament. But, for all preliminary proceedings, the Judge of the Probate Court is to sit alone as Judge ordinary, and he is also to have concurrent jurisdiction as to the two preceding remedies.

"*The grounds of the dissolution of marriage are, on the part of the wife, simple adultery; but, on the part of the husband, the adultery must be incestuous (that is adultery with any woman, whom, if his wife were dead, he could not lawfully marry by reason of her being within the prohibited degrees of consanguinity or affinity) or accompanied with bigamy, whether this bigamy occurred within or without the British dominions*, or accompanied by cruelty such as would by itself entitle the wife to a judicial separation, or by desertion, without reasonable excuse, for two years and upward. Rape, and the crime against nature committed by the husband, are also grounds upon which the wife can obtain a divorce. But the Court must be satisfied not only of the fact of the adultery alleged, but also that the petitioner was not accessory to it, nor connived at it, nor has condoned, that is, pardoned it, and also that there is no collusion between the parties—in all which cases, the petition is to be dismissed; nor is the Court bound to pronounce a decree of divorce if it should be made to appear that the other party had also been guilty of adultery, or of unreasonable delay in presenting and prosecuting the petition, or of cruelty towards the other party, or of desertion

without reasonable excuse, or of such willful neglect or misconduct as has conduced to the adultery.

"The Court has the power in all cases, according to its discretion, to grant alimony to the wife, either by way of a round sum or an annual payment during her life, and to make interim orders, by way of alimony or otherwise. The latter power also extends to the Judges authorized to grant judicial separations.

"If the husband is the petitioner, he must make the alleged adulterer a co-respondent, unless excused from it by the Court. If the wife is the petitioner, it is in the discretion of the Court to require that the woman with whom the adultery is alleged should also be made a co-respondent. If the adultery is established, the Court is authorized to impose the whole or a part of the costs of the proceeding upon the adulterer. Either of the parties is entitled to insist on a trial by jury. The petitioner is liable to be examined under oath, at the discretion of the Court, but is not bound to answer any question tending to show that he or she has been guilty of adultery.

"*Fourth*: The husband, either in connection with a petition for a judicial separation, or a divorce, or by a distinct process, may claim damages against an adulterer, which damages, if recovered, shall be applied, at the discretion of the Court for the benefit of the children of the marriage, if any, or as a provision for the maintenance of the wife."

Although a decided improvement on its predecessor, this new law lacks the liberality which the spirit of the age demands, and indicates most strikingly the prerogative married men arrogate to themselves. Indeed, one of the members of Parliament, while the bill was under discussion, in substance remarked that if the law should be made equally binding on the husband, every gentleman in the House would soon become a "grass widower."

Marriages among the higher classes of English are governed by considerations of wealth and title, with little reference to love. The marriage of an aristocrat with a person in humble life, cannot be tolerated. All sorts of incongruous companionships are therefore formed in high circles. "Especially have English princesses," remarks a writer, "been unlucky in their matrimonial connections. More particularly is this true of princesses of the House of Hanover. To go back to Sophia, daughter of George the First, who married the first William Frederick of Prussia, she, poor thing, was almost daily beaten by her husband, a man whose brutality amounted almost to

insanity. Once she was nearly killed by him, with her daughter, and often was in imminent fear for her life. He denied her sometimes the common necessaries of life. She used to say, sarcastically, in her old age, that the only kind words he ever addressed to her were, 'Sophia, get up and see me die.'

"The eldest daughter of George the Second made a match only less unhappy. She was twenty-four before she was married at all; and then had to take the deformed Prince of Orange, because he was the only Protestant Prince in Europe of suitable age. Her father expostulated with her on the malformation of her proposed bridegroom. 'Were he a Dutch baboon,' she answered, tired out with her position at home, 'I would marry him.' It was the custom of that coarse age for a bride and groom, on the nuptial evening, to sit up in bed, in costly night dresses, to receive the compliments of their friends. On this occasion, as the royal family and nobility defiled past the Prince and Princess, who were magnificent in lace and silver, the Queen, the bride's own mother, declared that when she looked at the bridegroom from behind, he seemed to have no head, and when she looked at him in front, she could not, for the life of her, tell where his legs were. Walpole or Henry, we forget which, records the anecdote. The Princess lived to regret her maiden condition at her father's Court, even with all the neglect that attended it.

"Another daughter of George the Second married the Landgrave of Hesse, the same who afterwards sold his soldiers to England, in order to assist in conquering these colonies. He was so brutal, that his wife, at last, had to desert him and seek refuge in her native country. A third married the King of Denmark, who abused her shamefully, openly insulting her in the presence of an unprincipled woman, who shared what he had of affection. She died, partly of a broken heart, partly of a cruel disease, at the early age of twenty-seven."

Among the lower classes more freedom is allowed by the social rules by which they are governed, and still the glitter of gold is frequently more captivating than the throbbings of a good heart, among these. Many a marriage is consummated where a purse is held by one or the other, which would hardly be contemplated in its absence.

Marriages in England, to be legal, must be solemnized by a clergyman of the established church, after the banns have been published or a license obtained from the primate.

The marriage laws of Ireland correspond in all essential particulars with those of England In Scotland, however, there is less dif-

ficulty in "getting spliced," a simple declaration of the parties before a competent witness being sufficient to make the "twain one flesh." As in some of the States in this country, it is no trick to get the knot tied, but a mighty difficult one to get it untied. Gretna Green, located near the border of England, was famous at one time as a marrying place, and was resorted to extensively by English fugitives, who found a blacksmith ready to listen to all such declarations for a small fee.

A SPANISH LADY.

In Spain, little fidelity is known among married people. Jealousy never finds place in the Spanish breast, and the "liberty of married women has no limit except their own discretion," which, owing to

an ardent temperament, interposes but a feeble restraint. Marriages are generally arranged by the friends or parents of the parties, and solemnized by the priests, whose powers in that country are despotic. Lord Byron, in describing the customs of the Spaniards, in a letter to his mother, from Cadiz, wrote as follows:

"I beg leave to observe that intrigue here is the business of life; when a woman marries she throws off all restraint, but I believe their conduct is chaste enough before. If you make a proposal which in England would bring a box on the ear from the meekest of virgins, to a Spanish girl, she thanks you for the honor you intend her, and replies, 'Wait till I am married, and I shall be too happy.' This is literally and strictly true.

"The Spanish lady may have her cortejo as well as the Italian her cicisbeo. It is Spanish etiquette for gentlemen to make love to every woman with whom they have the opportunity, and a Spanish lady of rank has said that she would heartily despise the man who, having a proper opportunity, did not strenuously solicit every favor she could grant. Every Spanish woman reckons this as a tribute due to her charms; and, though she may be far from granting all the favors a man can ask, she is not the less affronted if he does not ask them." Yet the husbands of Spanish ladies, like those in all other countries, are under still less restraint than their wives.

In France, marriages among the higher classes are arranged by the parents or relatives of the parties, and generally solemnized by the priests. Separations are more common than divorces, "agreeing to disagree" being settled upon by the parties themselves. "The boudoir," remarks Goodrich, "is the sanctuary of a married dame, and the husband, who should enter it unbidden, would regard his power more than his character; he would bear the reproach of society, and be deemed a brute; for it is a great evil, in French society, that the unmarried females have too little freedom, and the married quite too much. The boudoir is a fit retreat for the graces, and other females of the mythology. Paintings, statues, vases, and flowers, nature and art combine to adorn it. It is the palace Armida, the bower of Calypso; but it breathes of Helicon less than of Paphos"

Marriages of convenience always have a decided tendency to make husband and wife discontented, and these being in the majority in the higher circles, it is not singular that in French society many liberties are taken and tolerated by both husband and wife. "In

France, Spain, Portugal, Italy and much the largest part of the continent of Europe," says Nichols, "marriages are arranged by the parents of at least one of the parties. A girl, educated in seclusion sees her intended but twice before he leads her to the hymeneal altar; once to be formally introduced, and once to sign the marriage contract. If he has suitable position it is enough; he may be old, ugly, repulsive; he has been chosen as her husband by those who ought to know what is best for her, and she accepts him with disgust because she must, or with indifference because she knows no better"

In Portugal the marriage customs do not differ much from those of Spain, except that ladies when married retain their maiden names. Females are more secluded than in Spain, but are quite as much given to intrigue and matrimonial infidelity.

The Swiss, who are noted for their free political institutions, while surrounded with despotism, cannot marry without the consent of the magistrates, whose permission or refusal is governed by the *fitness* of parties presenting themselves for marriage. It is required that there shall be adaptation between the parties, and this peculiar system of legalizing marriage results in happy families and hardy children. "At Geneva," says Goodrich, "the mode of life is extremely social. The soirees are constant from November to Spring. These meetings resemble family assemblages, in their freedom from the constraints imposed by etiquette. A stranger is struck with the affectionate manner by which the women of all ages address each other. These come from the influence of certain "Sunday Societies," in which children meet at their parents' house, where they are left to themselves and have a light supper of fruit, pastry, &c. The friendships thus formed endure through life, and the youthful expressions of fondness are never dropped." Divorces are very uncommon. The front door of marriage is guarded more than the back, and those who enter are generally too well satisfied to wish to get out.

In Italy, it has been remarked "that marriage is not a bond, but the reverse." Before marriage a lady is the prisoner of a convent, or the parental mansion, and is not allowed the society of gentlemen; but after she has become the wife, she may also become the lover of from one to three more besides her husband.

Byron, in one of his letters from Venice said—"The general state of the morals here is much the same as in the Doges' time. A woman is virtuous, according to the code, who limits herself to her husband and one lover; those who have two, three or more, are a little wild"

but it is only those who are indiscriminately diffuse, or form a low connection, who are considered as overstepping the modesty of marriage. There is no convincing a woman here that she is in the smallest degree deviating from the rule of right, or the fitness of things, in having a lover. The great sin seems to lie in concealing it, or in

AN ITALIAN LADY.

having more than one—that is, unless such extension of the prerogative is understood and approved of by the prior claimant." The same author further says—"they marry for their parents and love for themselves," and that a "person's character is canvassed, not as

depending on their conduct to their husbands and wives, but to their mistress and lover." Still, remarks a noted historian, "a person may pass through Italy, or live there for years, and not once be shocked with such undisguised vice, as in one night will intrude upon him in an English city." Prostitution, as a trade, cannot flourish in such society. It is, of course, uncalled for, where infidelity among married ladies is so fashionably allowed, or where polygamy is legally tolerated.

In Greece, girls are kept in separate parts of the houses, in a state of seclusion, much the same as in Turkey. They are not permitted to enter society until after marriage, when the restriction is removed. Weddings there are celebrated with great eclat. A procession attends the bride to her future home, preceded by music and young girls, dressed in white, who strew the path with flowers.

In Prussia, parties contemplating marriage are required to announce the fact in the newspapers. Matrimony among the higher classes is contracted on the title and "specie basis," as in most European countries. Infidelities, if discovered, are not overlooked, and divorces are of frequent occurrence—to the number of two or three thousand a year.

The Russian nobility conduct their marriages much the same as other Europeans. The peasantry, however, according to popular authority, have peculiar customs. The suitor applies to the mother, saying, "Produce your merchandize, we have money for it." When the bargain is concluded, the bride, at the wedding, is crowned with a chaplet of *wormwood*. "Hops are thrown over her head, with the wish that she may prove as fruitful as the plant. Second marriages are tolerated, the third are considered scandalous, and the fourth absolutely unlawful." The wives of the lower classes of Russians are treated in a shameful manner, and their position is only one remove from that of a slave.

In Austria, Germany, Switzerland, Norway and Sweden, the monogamic system is the law, and practical polygamy the violation. In the country last named, a species of practical omnigamy, or "free love" prevails to a remarkable extent, though not under the sanction of law. Bayard Taylor wrote from Stockholm as follows:

"After speaking of the manners of Stockholm, I must not close this letter without saying a few words about its morals. It has been called the most licentious city in Europe, and I have no doubt with the most perfect justice. Vienna may surpass it in the amount of

conjugal infidelity, but certainly not in general incontinence Very nearly half the registered births are illegitimate, to say nothing of illegitimate children born in wedlock. Of the servant-girls, shop-girls and seamstresses in the city, it is very safe to say that scarcely one out of a hundred is chaste, while, as rakish young Swedes have coolly informed me, a large proportion of girls of respectable parentage, belonging to the middle class, are not much better. The men, of course, are much worse than the women; even in Paris one sees fewer physical signs of excessive debauchery. Here the number of broken down young men, and blear-eyed, hoary sinners, is astonishing. I have never been in any place where licentiousness was so open and avowed—and yet, where the slang of a sham morality was so prevalent. There are no houses of prostitution in Stockholm, and the city would be scandalized at the idea of allowing such a thing. A few years ago two were established, and the fact was no sooner known than a virtuous mob arose and violently pulled them down. At the restaurants, young blades order their dinners of the female waiters with arms round their waists, while the old men place their hands unblushingly upon their bosoms. All the baths in Stockholm are attended by women (generally middle aged and hideous, I must confess,) who perform the usual scrubbing and shampooing with the greatest nonchalance. One does not wonder when he is told of young men who have past safely through the ordeals of Berlin and Paris, and have come at last to Stockholm to be ruined."

In Turkey the first marriage is contracted by the parents of children who are sometimes betrothed at the age of two or three years. When they arrive at adult age, the bride is carried in a procession to the house of the husband. But polygamy is the law of the Ottoman empire, and the husband is allowed to purchase as many more wives as he chooses. They purchase many girls of the Circassians, for which they pay from twenty to thirty dollars apiece for handsome ones. Once they were considered cheap at $500. The wives of a Turk are kept in what is termed a harem, a place gorgeously fitted up, and attended by eunuchs.

Formerly, a Turkish lady never left the harem without concealing her face behind a great number of veils. The war between Turkey and Russia has effected considerable change in this custom, and now only one thin veil is used, through which the eyes of strangers look on beauties whilom concealed from the gaze of foreigners. The ladies of Turkey are said to enjoy nearly as much liberty as the females of

Christian countries, where polygamy is not tolerated, and where ladies sell themselves to wealthy husbands. Turkish women bear more female than male children, a noticeable fact in all countries where the plurality system of marriage is maintained. A Turk can

A TURKISH LADY.

divorce a wife at pleasure, for if he have no real cause, he can make a false accusation, and sustain it by perjured witnesses which can be obtained without difficulty; but he is not permitted to take her back

again for the fourth time, unless, during the interval of the separation, she has been the wife of another man. Notwithstanding the little regard manifested for the marriage contract, death is the penalty for adultery.

With this cursory view of the matrimonial customs of the old world, we will now turn our eyes to our own continent, and see how we find

MARRIAGE IN THE NEW WORLD.

In South America, the marriage institutions of the people compare, at least, favorably with those of the semi-barbarous portions of the old world.

The Araucanians in the southern part of Chili, with a population of 400,000, believe that marriage is perpetual in this world and the world to come. Every man is allowed to have as many wives as his means will permit, the first being considered superior to the rest. The husband selects his partner for the night at the supper table, by requesting her to prepare his bed. Buying and selling wives is practiced to some degree. "Marriage is always celebrated with a show of violence, for even after consent is obtained, the bridegroom conceals himself on the road, seizes the bride, and carries her to his house." It is required that each wife shall present her husband with a fine cloak.

In Brazil, the civilized portion of its inhabitants maintain the monogamic system of marriage, and are said to be "exemplary in their domestic relations." It is not uncommon, however, to see an old man united with a young girl in marriage. Disparity in ages is considered no obstacle to a happy union. Among the uncivilized natives, polygamy is upheld, and ornaments are more profusely bestowed on the person than clothing, by both sexes, and yet they have a fair reputation for chastity. Adultery is punishable with death.

In Central America and Mexico, polygamy, monogamy and omnigamy are practiced, according to the respective conditions of their heterogeneous population. Only about one-fifth are white, and those are of Spanish origin, and imitate, in a measure, the customs of their ancestors. The marriages among this class are generally celebrated with some pomp, "and the fee for the priest, even from parties of the lowest rank," says Goodrich, "is not less than twenty-two dollars, and this in a country where the houses of the poor cost but

four dollars, where the price of labor is a quarter of a dollar a day, and where the church observances leave but 175 working days in each year!" The remaining population is divided between Mestizos, Mulattoes and Zamboes, many of whom are but a little above the savage, go naked and have no established forms of marriage. The Mestizos are the offspring of whites and Indians, and many of the females are said to be very beautiful. Those who do not associate with and imitate the customs of the whites, are omnigamic, and governed by their impulses.

A MESTIZOS GIRL.

In North America, the customs of the aborigines are interestingly daguerreotyped in a quotation from McIntosh's Book of Indians, which I find in "Marriage, its History and Philosophy," by L. N. Fowler. "They are," he says, "generally contented with one wife; but they sometimes take two, and seldom more than three. The women are under the direction of their fathers in the choice of a husband, and very seldom express a predilection for any particular person. Their courtship is short and simple. The lover makes a present generally of game, to the head of the family to which belongs the woman he fancies. Her guardian's approbation being obtained, an approbation which, if the suitor is an expert hunter, is seldom refused, he next makes a present to the woman, and her acceptance of this signifies her consent. The contract is immediately made and the match concluded. As soon as he chooses he is admitted to cohabitation; but the time of the consummation is always a secret to every one but themselves. All this is transacted without ceremony,

without even a feast. The husband generally carries his wife among his own relations, when he either returns to the tent which he formerly inhabited, or constructs a new one for their own use. They sometimes, but seldom, remain with the wife's relations. When the wife is removed, if the game be plentiful, he gives an entertainment to her relations. These contracts are binding no longer than both parties are willing. If they do not agree, they separate—the woman returns to her relations, and if they have any children she takes them along with her; but after they have children a separation very seldom takes place. If a woman be guilty of adultery, and her husband be unwilling to divorce her, he cuts her hair, which is the highest female disgrace. On the woman is devolved every domestic charge. She erects the tent, procures wood for the fire, manages the agricultural affairs, dresses the provisions, catches fish, and makes traps for small animals. The husband only employs himself in the chase.

"When a woman is with child, she works at her ordinary occupations, convinced that work is advantageous, both for herself and child; her labor is easy, and she may be seen on the day after her delivery, with her child at her back, avoiding none of her former employments. They suckle their children till they are at least two years of age. Their cradle was anciently a board, to which they laced their children, after having wrapped them in furs, to preserve them in heat. This is set down in a corner, or hung up in a tent, and without loosening it from its cradle, the mother often takes it on her back, and in that manner carries it about.

"Among the Indians, women cannot contract a second marriage without the consent of those on whom they depend, in virtue of the laws of widowhood. If they can find no husband for the widow she finds herself under no difficulties; if she has any sons to support her she may continue in a state of widowhood, without danger of ever wanting anything. If she is willing to marry again she may, and the man she marries becomes the father of her children; he enters into all the rights and obligations of the first husband.

"The husband does not weep for his wife, because, according to the savages, tears do not become men; but this is not general among all nations. The women weep for their husbands a year; they call him without ceasing, and fill their village with cries and lamentations, especially at the rising and setting of the sun, at noon, in some places; when they go out to work and when they return. Mothers do much the same for their children. The chiefs mourn only six months and may afterwards marry again.

"It appears that the Indians have their merriments on the marriage occasions, although their celebrations go off commonly without much ceremony. There are in all nations some considerable families, which cannot marry but among themselves, especially among the ALGONQUINS. In general, the stability of marriage is sacred in this country, and for the most part, they consider as a great disorder those agreements, which some persons make, to live together as long as they like, and to separate when they are tired of each other. A husband who should forsake his wife, without any lawful cause, must expect many insults from her relations; and a woman who should leave her husband without being forced to it by his ill conduct, would pass her time still worse.

"Among the Miamis, the husband has a right to cut off his wife's nose if she runs away from him; but among the Iroquois and Hurons they may part by consent. This is done without noise, and the parties thus separated may marry again. They cannot even conceive that there can be any crime in this. 'My wife and I cannot agree together,' said one of them to a missionary, who endeavored to make him comprehend the indecency of such a separation; 'my neighbor's case was the same, we changed wives and we were all happy; for nothing is more reasonable than to make each other happy, when it is so cheaply done without wronging anybody.' Nevertheless, this custom, as we have already observed, is looked upon as an abuse, and is not ancient, at least among the Indians."

"The Greenlanders," Fowler remarks, "pay some little regard to the affections in their matrimonial alliances. In the negotiations, the parents never, or rarely, interfere—the lover thinks but little of a dowry with his wife. If she will make a good, kind, affectionate and obedient *wife*, his highest anticipations are fully realized, and he has all he desires. About the time of the celebration of the nuptials, the bride pretends to be opposed to the marriage, runs away, screams and is finally taken home by force by the bridegroom, which constitutes the sum total of the marriage ceremony. Polygamy is occasionally practiced and divorce is exceedingly common."

In the United States and territories, which enjoy the most exalted position among the nations of the new world, all existing systems of marriage are more or less represented. In the States, the monogamic system only is recognized by law—pretty generally observed by wives—professedly so by nearly all husbands, and strictly so by many.

In no country in the world are greater immunities enjoyed by the people in the selection of conjugal companions, than in our own, and still, wealth, distinction and parental dictation, exert a mighty influence in match-making. Did the thought ever occur to the reader that daughters here are often times *sold* in marriage by their parents or themselves, just as truly as they are in many heathenish countries? Such is a lamentable fact, and one which has not failed to make an impression on the minds of many observers.

GREENLANDERS.

'The accursed term 'marriage of convenience,' fit only to be found in the mouths of an unfortunate or a libertine," says Dixon, "is now by no means too shocking to escape the lips of a fashionable mother, alarmed at her husband's prospective failure, and the consequent loss of her box at the opera. She must make profitable sale of her daughters, because she cannot influence her sons, or their wives when they get them. Whether the article be merchantable or not, a sale must be effected. The father is too often so immersed in business, that he is scarcely consulted; the family physician never;

or if he be, he is perhaps a time server, and looks forward to a profitable return for withholding the truth."

Continues the same writer—"Riches, when combined with a tolerably decent family genealogy, are an object of boundless ambition, and in New York take precedence of all other recommendations. From the clergyman to the market woman, all are equally blinded by it; neither dissipation, nor an empty head, are often drawbacks whether in man or woman; and alliances are every day contracted, where nothing but disgrace and mortification can reasonably be anticipated."

The almost invariable inquiry among friends, when a marriage takes place, is—"Has she done well?" which generally signifies has she married a house and lot, a good supply of pretty furniture, or a large amount in bank and rail-road stock, and a comfortable pile of money. This question is almost universally so regarded, so much so that the respondent, in reply, at once begins to tell either how rich or poor the husband is. If a wealthy position has been attained by the bride, parents and friends congratulate themselves on the success of the daughter, and the unanimous exclamation is—"She has done well." Young women in the highest circles often sell themselves to old men double or triple their age, or are so sold by parents, and do not seem to dream that they are bartering away their virginity and womanly charms for gold, the same virtually as the abandoned woman who walks the pavement in New York. True, there may be cases where mutual love exists in such unequal copartnerships, but these are manifestly rare exceptions.

On the other hand, a woman possessing wealth, though ugly in person or disposition, can always obtain a husband. Many young men at the outset stifle all love for ladies in humble life, however amiable in disposition and prepossessing in appearance they may be, with the avowed object of marrying a fortune.

When considerations of wealth have little or no influence, parents often interfere, to an unwarranted extent, in the marriage of their sons and daughters. My eye has this day fallen upon two instances illustrative of this remark. A Chicago paper says—"The village of Colchester, on the Chicago, Quincy and Burlington road, was the scene of a sad affair one day last week. A young lady of that place, the daughter of an estimable citizen, had for some time past received the addresses of a young man in opposition to the wishes of her parents. They remonstrated with her again and again, but to no

purpose. Finally, her father told her he would rather follow her to the grave than see her the wife of a man whom he regarded as unworthy of her. Shortly afterward the young lady was seized with an alarming illness, and in three hours more a corpse. Just before dying, and when she knew she was beyond the reach of remedy, she confessed to having procured and taken a large portion of arsenic. The unhappy father's alternative was presented to him sooner than he could have believed it possible."

A Cincinnati paper records the following: "A beautiful German girl was taken to the Commercial Hospital yesterday, a raving maniac; her reason completely overthrown by disappointment in love. It seems that she had been engaged to one of her countrymen for some months, and had fully expected to become his wife, when her father informed her last Saturday that she should not marry.

"Upon the announcement she fell, as if struck by lightning, to the floor, and it was with much difficulty she was restored to consciousness. She then began raving frightfully, and with cries and screams, and groans and tears, and lamentations, startled the whole neighborhood of Bremen street, where she resided. Nothing could be done to calm or appease her—she grew worse and worse, until it was determined to remove her to the Hospital.

"When there, she continued to rave, and would have died from exhaustion very soon, had not chloroform been administered to keep her quiet. It was found necessary, too, to bind her to the floor, else she would have taken her life, leaped out of the window, or done anything desperate. The physicians who saw her say they never beheld so violent a maniac.

"It is pitiable to observe this young and beautiful woman, just in the spring of life, suffering—and how intensely she must suffer—all the horrors of madness, because of a generous and absorbing passion, which might and should have been made her happiness on earth."

These are by no means isolated cases; the press teems with such sad recitals. Let me not be understood as disparaging parental counsel—only parental tyranny. Parents should always give good advice to children in matters pertaining to the selection of a conjugal companion, and at this point all interference or dictation on their part should stop. If the laws of physical and mental adaptation were more generally understood by them, and their positive interference in the selections of their sons and daughters based unselfishly on these rules, then might their prohibitions in all cases be regarded

as best for the interests of their children. But seldom are parents qualified to decide in this matter, all dictation on their part arising from their own likes or dislikes, as if their children were bound to love every body whom they love, and dislike all who are not prepos-

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sessing to them. This kind of interference oftener thwarts physical and mental adaptation than favors it, because love seldom springs up spontaneously between a youth and maiden, when there is mental and physical uncongeniality. For this reason parental interference

ungoverned by phrenological and physiological knowledge, often prevents than effects the right kind of marriages.

American wives, with occasional exceptions, are faithful to their husbands, and many husbands, particularly in the rural districts, are faithful in return. But the fact that over *one hundred thousand* public prostitutes, and at least an equal number of private mistresses are supported in the United States, and many of them in extravagance and splendor, leads us to the irresistible conclusion that, while monogamy is the law in state and society, polygamy is the custom of not a small proportion of the male population. It is a proverbial remark in New York, that the abandoned females of that city are maintained chiefly by the patronage of married men visiting the metropolis. Singular disclosures in fashionable life, growing out of a recent notorious affair, go to show that it is not impossible for wives to imitate their husband's vices.

Occasionally cases occur of mutual exchanges, transient or permanent. There is now living in a New England city, a couple of husbands, in respectable position, who traded wives by consent of all parties concerned, several years ago. The gentlemen were copartners in business at the time of the exchange, and the two families have since lived on terms of friendship, with no desire to trade back! Although this may sound like a strange story, it is a veritable fact.

Transient exchanges are not uncommon among some of the too fast livers of large cities, but permanent ones, unless effected by elopement, when the bargain is all on one side, are certainly rare occurrences. "Lycurgus, the great legislator of the Lacedæmonians," it is said by a historian, "thought that freely imparting wives to each other was the best way of preventing jealousy, ridiculing those who thought the violation of their bed an insupportable injury." Those who exchange, are probably disciples of his theory.

The condition of American wives is various. Some are dolls—some companions—many drudges. Happy marriages are common—unhappy ones more common—tolerably happy ones most common.

Divorce laws differ in the various States, although in all, I believe, the wife is guaranteed the same legal relief as the husband. Several States grant divorces on the ground of cruelty, intemperance, willful absence, fraudulent contract, as well as adultery. A few limit the cause to the latter, and the erring party is debarred the privilege of marrying again—a provision which cuts off all probability and encouragement of a reformation on the part of the offending one.

The result of such one sided divorces is that the man or woman against whom the decree has been rendered, leads a life of licentiousness.

Some of the States punish adultery with imprisonment—others with fines—others not at all—and in every State a husband is leniently dealt with, who takes the life of the violator of his marriage bed.

Public opinion zealously upholds the monogamic system in this country, and society severely criticises any violation which obtains publicity. In defiance of this, however, omnigamy, or "free love," has its votaries. There are communities of this sort in Ohio Wisconsin and Connecticut. These, of course, are the fungus growths of our liberal institutions, and have not the support of statutory law.

In the territory of Utah, under the sanction of Mormonism, we have polygamy. Brigham Young, the chief priest of that organization is said to have forty wives, and his elders and disciples are at liberty to have as many as they choose. I saw in one of the New Haven papers, a few years ago, a letter purporting to have been written by one of the wives of a mormon, to her sister in that city, in which the author enthusiastically endorsed the plurality system, expressed herself contented and happy with her situation, and added that no jealousy existed between herself and her co-wives. Her account of polygamic felicity materially conflicts with the testimony of travelers, who represent the condition of the Mormon women as degraded beyond description. In the present state of affairs in that territory, however, all reports should be received with some grains of allowance. The Mormons are fashionable, at least, in their matrimonial regulations, for it is claimed by an authoritative writer, that polygamy is tolerated by the laws and usages of four-fifths of the human race, and the facts given in this chapter are not such as to disprove his assertion. Divorces among the Mormons, I believe, are never granted without consent of the church.

The "Saints" boast of the absence of prostitution in Utah, and discourse sarcastically on the existence of this vice among the "Gentiles." They urge, and with facts to sustain them, that prostitution is common in all monogamic countries. The truthfulness of this accusation is seriously to be regretted, and it is the imperative duty of physiologists to make such suggestions for the amendment of our marriage laws as will ultimately root out prostitution, and

thereby sustain the integrity and utility of the monogamic system of marriage. I say physiologists, because the studies of these men better qualify them to point out measures which will conciliate and turn into a virtuous channel the sexual passions of mankind.

CHAPTER II.

Philosophy of Sexual Intercourse.

Some over fastidious readers, perchance, will question the propriety of a public presentation of my theory regarding the philosophy of sexual intercourse, but the necessity of the step will be perceived in subsequent chapters. Subjects of such vital importance must be discussed, and where so appropriately as in the pages of physiological works? Ignorance of the truths which will be herein presented, is the cause of secret vices, matrimonial discords and love elopements.

I have shown in the first part of this work, and particularly in Chapter 1st, that electricity permeates every atom of animate as well as inanimate matter, and that every organized being possesses within itself the requisite apparatus and elements for its generation and absorption. The office of this chapter will be to show that it is the source of sexual enjoyment.

To the pure in mind this dissertation will appear neither carnal or uninstructive, for no parts of the human system are more deserving the attention of philosophers, physiologists and the public at large, than those which perform the superior functions through which the Divine Creator establishes sexual love, and perpetuates the noblest work of his Almighty hand. In consequence of the silly fastidiousness which a false state of society has engendered, science has heretofore contributed nothing towards unfolding the philosophy of the action of these mysterious faculties, and knowing the prejudices which frequently arise against those who dare to meddle with the delicate subject, I have myself felt many misgivings in giving publicity to my views; but surrounded, as I am, with wrecks of humanity, cast away through the ruinous consequences of matrimonial infidelity, sexual excess and secret vices, I feel impelled to contribute what I can to avert these evils.

The warnings of physiologists to the young have thus far availed little, if anything, because good *reasons* have not been adduced to show that secret indulgences are more deleterious than natural gratifications of the amative passion, while little has been written argu-

mentatively at all calculated to root out the vices of marriage. I shall not, therefore, withhold the results of my careful investigations, but give them plainly for the good of both married and single.

To the end that the unprofessional reader may fully comprehend what I am about to say, an important physiological fact should be mentioned, viz: *no organs of the body, except the brain, are so extensively permeated with nerves or electric conductors, as those embraced in the sexual parts.* Located in close proximity to the plexus, at the inferior terminus of the spinal column, they receive an extraordinary share of those curious little cords, which, by the aid of animal electricity, impart to the animal organization the sense of feeling. In the act of cohabitation, these sensitive nerves are exercised by electricity in three forms; and in masturbation by electricity in only one form. I will now proceed to explain each of these several forms, under their appropriate heads.

1st. INDIVIDUAL ELECTRICITY

The fact that every animal body has within itself the requisite machinery for the generation of vital electricity, does not necessarily establish the conclusion that electricity is alike in capacity and quality in all persons. On the contrary, it would be preposterous to entertain such an idea for a moment, when we take into consideration the difference which exists in size, shape, solidity, activity, age and sex. The inference is irresistible, that people differ electrically as much as they do physically. This being a fact nearly or quite self-evident, it is apparent that two persons of different sex and temperament sustain the electrical conditions of positive and negative to each other, and that contact, if of sufficient duration, produces an equilibrium, unless the one possessing the greater amount, restrains it by the action of the will. Electricity, unless interrupted, seeks an equilibrium the same as water seeks a level. The mind, having control of its own agent, may sometimes retain it, and at others discharge it with an effect as perceptible as that produced by the discharge of a cannon ball.

The power of individual electricity is manifested by the magnetizer, who fastens a man's limb so that he cannot move it—his eyelids so that he cannot raise them, and his tongue so that he cannot speak. Probably every reader of these pages has witnessed the experiments of a mesmerizer, and marvelled at his peculiar powers—perhaps imagined, uncharitably, that he was leagued with the devil—

inwardly accused him of being, at least, a devout disciple of 'His Satanic Majesty." Unfortunately for themselves, mesmeric operators, so far as I know, cannot philosophically account for the powers they possess, and hence superstitious people very naturally imagine they are under the direct patronage of that ubiquitous individual—"the evil one." But I flatter myself that I have discovered the secret.

It must be remembered that in an audience of two or three hundred, a mesmerizer seldom finds but fifteen or twenty whom he can affect. These, let it be understood, are in a condition relatively *negative* to the operator, who, by the effort of his will or sundry manipulations, imparts an overpowering quantity of his own individual electricity to them. Imparted to these subjects, the operator still retains the control of his own individual electrical element, and by a simple effort of the will makes them walk, stand still, hold up a hand, raise a limb, or perform any other motion he may desire. How do you raise your own hand? Simply by setting in motion a current of your vital electricity, which contracts one set of muscles on the top of the arm, and relaxes those which are under. Now, if you should practice yourself in the art of imparting to other persons, in a negative condition compared with your own system, a portion of your own electricity, sufficient, at least, to overpower theirs, you could soon become a mesmerizer, and make them, while under the influence of your electricity, raise an arm, hold it still, or produce any other motion that you can perform with your own limbs.

The psychologist possesses this power to a greater degree than the mesmerizer, for he can impart his electricity to the brain of a susceptible subject, and by exercising its various organs, produce any sort of mental hallucination he may invent.

"Should you aim to produce those effects of mind upon mind called 'psychological,'" says a writer, "it will not be necessary to go through the tedious process of the passes. If you can succeed in rendering the mind of your patient so fixed for several moments upon a coin or a spot on the wall, or any point—it matters not which, provided that he brings himself to the requisite degree of susceptibility—you will be able to slip your *influence* between his brain and his physical system, and so be able to control his sensations and perceptions. If it is desired that you make him believe himself an orator, musician, or monk, have in your mind a clear conception of the character, and make an effort to *impart* the impression."

Now, what is this *influence* but the nervo-electricity which the immortal principle of man employs to perform the various phenomena of animal life?

Mesmeric power is possessed to a wonderful extent by some persons, who can impart their nervo-electricity to inanimate matter, and make it exhibit the appearance of life for a few moments. I can never forget an experiment I once saw performed before I understood the philosophy of mesmerism. I was on a trip up Lake Michigan. A veteran vessel captain was a fellow-passenger—a jolly tar, full of good jokes and anecdote. I formed one of a social group, who gave him audience. I had a favorite hickory cane in my hand, and the old captain proposed to make it dance Yankee Doodle. The deck was cleared sufficiently to allow room for the incredible exploit, when the old necromancer (as we all thought him) made several rapid passes from the top to the extremity of the stick—then stood it off at a distance of three or four feet. He immediately commenced whistling and the cane commenced dancing—i. e., hopping up and down a distance of half to three quarters of an inch. It performed this motion only a few moments, however, not long enough for the captain to go through with his tune! His music was accompanied with a violent motion of the hand, which the cane imitated, in a measure, just so long as it remained charged with the old man's magnetism; when that left, as a matter of course the stick, in obedience to the laws of gravitation, fell. At each repetition of the experiment he stopped to manipulate the cane. It is not at all probable the old tar knew the philosophy of his feat, or for a moment imagined that he possessed the requisite qualities to make a good mesmerizer or psychologist. The oldest hieroglyphs indicate that the production of mesmeric phenomena were known to the ancient Egyptians long before any book was written. Perhaps their philosophy was understood, though it is doubtful.

The power of individual electricity is manifested in the successful public speaker, and distinguished military hero. "Every age," says a newspaper writer, "has exhibited manifestations of man's electric powers. Behold the generals of Greece and Rome! See that untutored enthusiasm which but a few words to the soldiers would create with manifestations of a magnetic power of man over man. Behold, too, in the force of Napoleon Bonaparte, an illustration of the same principle. Even a movement of his hand toward the enemy, when the conflict was doubtful, seemed to beget new energies.

'Take another class in a different field. Imagine yourself in the forum at Rome, listening to the soul-stirring eloquence of Cicero. Behold that living mass of minds swayed by his magnetic power as the bosom of the deep is tossed by the winds of heaven—made to heave and swell with agitation and commotion. See the more mild and pathetic and elevating appeals of his eloquence calming their troubled bosoms like the sun bursting from a storm-cloud and calming its fury.

" At the moment when his soul was inspired by its own energies and the inspiration of his theme, his whole system evolved an immense amount of electric force. He should say more in ten minutes in that condition than in an hour—yea, two hours, and sometimes four hours, in a negative state."

But we need not go beyond the limits of our own country, or to past ages for illustrations. We have had a Webster, a Calhoun, a Clay, an Adams, a Washington, a Taylor, and now have a Corwin, a Choate, a Crittenden, a Beecher, a Scott, all of whom give evidence of possessing electric power to an eminent degree. No man can distinguish himself as a public speaker, or a military chieftain, whose system has not the power to generate a large quantity of the electric element.

There are in the Christian ministry many distinguished sermonizers and writers, who can produce only an imperceptible effect on a congregation. Let such a man as Ned Forest, who is a well charged electric battery, take the productions of these men and enter the pulpit, out of place as he would be, the effect would be thrilling. He would psychologise every auditor. Reichenbach, it is said, has demonstrated that the hands are constantly sending off streams of what he calls " odic force," and what I term animal electricity; also that the eyes are foci for this influence. " Odic force" is but another name for electric force, sublimated animal electricity being the element which constitutes it.

The power of individual electricity is manifested in the successful libertine. His presence, his gaze and his touch are magnetic. The innocent virgin and the reserved wife unconsciously fall victims to his singular powers. Aaron Burr was a distinguished illustration of this class. He could electrify and call into action the most latent passions of virtuous women; only those who possessed a powerful *will* to repel electrical influences, could resist his licentious advances. All great men may be successful libertines, by perverting their

electrical powers. The mental or phrenological organization of a man decides his electrical character. If his intellectual faculties predominate, he will employ his electric forces in the pursuit of honorable avocations and professions; if the intellectual and animal faculties are nearly equal in their developement, then will he make both a good and bad use of these forces, unless the brain is well balanced with the moral and religious organs; if the latter are small and the animal organs are larger or more active than the intellectual, then will the man use the subtle element generated in his system, in vicious pursuits. John Randolph's head was all before his ears, in consequence of which he had no disposition to use his electrical powers for licentious purposes. Many of his political compeers, however, presented very different phrenological organizations, which, in some instances, produced a marked and injurious influence upon their distinguished career.

RANDOLPH.

Again, the power of individual electricity is manifested in social life. We often meet with persons of both sexes, whose features and forms are not pretty, or their mental endowments striking, but still very attractive. We say of some lady, "She is very fascinating but not at all handsome; there is something about her very agreeable, although she is far from being mentally or physically prepossessing." Now, what is this mysterious *something* but her individual electricity which she unconsciously uses in commanding the respect and admiration of her acquaintances? She, in fact, magnetizes every one she meets, and makes them admire something and they do not know exactly what. Others are repulsive at first sight. Their magnetic influence is unpleasant, and we dislike them without being able to give a definite reason. They cannot magnetize us into respect for them, and the electrical radiations from their bodies and minds are uncongenial to our feelings.

Finally, individual electricity is strongly manifested in the sexual embrace, when the magnetic forces in each are focalized and blended in the sensitive nerves which concentrate in the sexual organs. In a *congenial* embrace, the mind of each party summons all the avail-

able electric powers of his and her organization, and employs them to the fullest extent in exciting in each pleasurable emotions. The greater the dissimilarity in the nature of their individual electricities, the more satisfying is the effect. Hence, persons of similar physical organizations, whose electricities, in consequence, are of a similar nature, have not the power to gratify each other to the extent those have whose temperaments are unlike. Some persons are so dissimilar in their physical organizations that any contact, such as the shaking of hands, imparts to each a pleasurable magnetic effect. The reader should peruse with attention this essay on individual electricity, as it is the basis of some of the most important original theories and suggestions of Part II.

2D. CHEMICAL ELECTRICITY.

I term that chemical electricity which is produced by a galvanic battery, a voltaic pile, or the union of acids and alkalies. I have explained in Part I. that experiments have proved the fact that if an acid and alkaline solution be so placed that their union be effected through parieties of an animal membrane, or through any porous diaphragm, a *current* of electricity is evolved. Now, what is it that affords the *current?* simply the porous diaphragm; but what produces the *electricity* which forms the current? I reply the union of the acid and alkali. Then the interposition of the diaphragm is only to establish a medium for a definite current, while electricity is *produced* by the commingling of acids and alkalies, whether a porous diaphragm intervenes or not. This leads us to the conclusion that electricity is produced when tartaric acid is added to soda, the latter being an alkali, and that it is altogether probable the titillating effects of a glass of soda are produced by the electricity generated by the combination of a positive and negative fluid. I know the effervescent property is claimed to be produced by the liberation of carbonic acid; but Dr. Bird says, "*it is impossible that any two elements can be rent asunder without setting free a current of electricity.*" In the union of acid and alkali, the carbonic acid is "rent asunder" from the elements with which it was united; and may we not then attribute a part of the visible effect produced to the electricity generated?

Admit that electricity is generated by the union of acid and alkali, and we find that chemical electricity is produced in the act of copulation. It has been shown in the first chapter of this work, that the

whole extent of the mucous membrane, excepting the stomach and caecum, is bathed with an alkaline fluid. The vagina of the female is superabundantly supplied with this fluid. And also, that the external surface of the body is constantly exhaling an acid fluid. The penis of the male, except the glans-penis, exudes an acid fluid; and in the act of copulation, I am inclined to think the secretion of the alkaline fluid by the female, and the exudation of the acid fluid by the male, is greatly augmented. I have before adverted to the pleasing sensations produced in the mouth and on the palate in drinking a combination of an acid and alkali, called soda; now, what must be the effect produced on the sensitive and highly excited nerves in the sexual organs, when animal alkalies and acids are united? True, these fluids are not supplied in sufficient quantities to produce any marked effect; but still the electricity so generated adds to the excitement of the sexual organs, and the emotions induced. In order that the male may not be insensible to the influence of the chemical electricity generated during copulation, the male organ is supplied with a sensitive membraneous apex called the glans-penis, which not only serves this purpose well, but also constitutes an electric, as will be shown by-and-by. Our investigations thus far, therefore, indicate that individual and chemical electricities are employed in the act of copulation. Next we will consider

3d. FRICTIONAL ELECTRICITY.

This may be produced in various ways. The rubbing of a piece of glass, amber, or sealing wax, with a piece of flannel, silk, or fur, will so charge the former with electricity, that, when held near light bodies, they will be attracted and adhere to them! Many persons by sliding the feet with rapidity over a Brussels carpet, can accumulate so much frictional electricity in their bodies, as to be able to light gas by snapping the fingers over the burner of a gas chandelier. I have a relative who frequently performs this interesting experiment He can also administer quite a perceptible shock with electricity thus accumulated.

Frictional electricity may be produced by rubbing the hands together with rapidity, or by rubbing any part of the body. Every external part of the system may be, in a measure, electrically excited by rubbing; but no part of the animal organization is so susceptible to this influence as the glans-penis of the male and the clitoris of the

female. It is by the excitation of these organs that masturbation is performed—a vice which is daily ruining the health of thousands of young men and women. They think that the warnings of physiologists are only intended to frighten them—that occasional secret indulgence is no more injurious than sexual intercourse. To the victims of this vice let me say that, in the act of masturbation, only one form of electricity is employed, and that *is drawn from the nervous system* and returned with frightful loss. Nature designed that the generative organs should be acted upon by individual, chemical, and frictional electricities; you employ only the latter, and that is not *produced* but extracted from your nervous organizations. In a natural gratification of the passions, the electricity produced by the commingling of the animal acids and alkalies, coition and the interchange of individual electricity compensates the nervous systems of both sexes for any losses which would otherwise be sustained.

The pubes, I am disposed to think, are useful in perfecting the curious electrical machinery of the generative organs. Hair being a non-conductor of electricity, may aid in confining the element generated and exchanged during the act of coition, to the sensitive nerves; or, in other words, serve to insulate the external parts of the sexual organs. Every thing has been created and given its appropriate place for some wise purpose, and this may be the office of the pubes. Be this so, or not, the generative systems of both sexes are the very perfection of divine mechanism, admirably adapted to the purposes for which they were created. Ignorance of their philosophy and physiology has ever lead to their serious perversion, both by the married and unmarried. In this case, ignorance is not bliss nor wisdom folly. Mankind should learn to make good use of them, but knowledge so desirable cannot be obtained unless their philosophy is correctly understood. For this reason I have indited this chapter, which constitutes the corner stone of those which follow.

CHAPTER III

Mental and Physical Adaptation in Marriage.

MANY reformers run wild on platonic love, and advocate platonic marriages, founded entirely on elevated mental affinity. Not a few philosophers, in all ages of the world, have taken the opposite extreme, and acknowledged the influence of no love in marriage except that of a passional nature. The middle of two extremes is almost invariably safe ground to stand upon, and the reformer who occupies this central position, generally exerts the greatest and best influence.

Observation teaches us that truly happy marriages cannot exist where only platonic love unites the sexes. Almost every community exhibits some marriages based on platonic love, but neither their offspring nor their constancy indicate that oneness of soul which characterizes those unions in which both physical and mental adaptation has been realized. Then, on the other hand, it is degrading to the human race, created in the image of God, and endowed with an immortal spark of divinity, to claim that love is but the exclusive offspring of passion, and that man and woman should marry under the single influence of that feeling which prompts the brute creation to mate and perpetuate its species. Human beings are animals and possess many inclinations in common with those of a lower type. Desires for food and sexual pleasures are shared by all animals—no less by man than by those over which the "lords of creation" rule supreme. But human beings are distinguished from the lower order of animals by intellectual and superior social endowments; consequently mental and social fitness should be considered as well as physical adaptation, in the marriage of men and women. Not, however, by any means, to the neglect of the latter any more than if man were not gifted with reason and elevated social faculties, for his animal desires are *not destroyed* by the presence of these crowning endowments.

Reciprocity in the sexual relation is *indispensable* to the contentment and happiness of husband and wife. O. S. Fowler, in a little

work entitled "Love and Parentage," has said some very excellent things, and to show the necessity of physical adaptation in marriage, I shall quote the following from his book, inasmuch as the opinions of the Messrs. Fowler, who have become celebrated as phrenologists, are generally regarded as orthodox.

Says Mr. Fowler—"RECIPROCITY is a constituent ingredient in its very nature. Without it neither can ever be happy in either love or wedlock. Its absence is misery to the ardor of the one, and repugnance to the coldness of the other. A cardinal law of both love and connubial bliss requires, that the more tender the affection of either, the more cordially should it be reciprocated by the other. This requisition is fundamental and absolute, and based in the physiological principle stated by St. Paul, that 'The man hath no' parental 'power over his own body, but of the woman; and the woman hath no power over her own body, but of the man.' Duality has already been shown to appertain to love and marriage. It does so because it appertains to parentage, the former two having the only terminus in the latter. Because parentage absolutely requires the joint participancy of two, a male and female, and allows only two to partake in the authorship of every single product of humanity, both of whom must necessarily thus partake together; therefore love, which is only an incipient and preparatory stage of parentage, must be reciprocal between two opposite sexes. Both must LOVE EACH OTHER, in order that both may participate with each other in this parental copartnership. As both must participate *together* in this repast of love, in order to render it productive, so both must cordially love each other as a preparation for this repast. The absence of this reciprocity in love, renders it insipid and painful, for the same reason that the parental function is abortive unless participated in by two conjointly."

The same writer continues—"The exalted pleasure appertaining to this parental function constitutes the one essential embodiment of love, as well as the principal object and ingredient in marriage. Its anticipation embodies the chief incentive of the former, and the main motive of the latter. What other motive does or should prompt either? Nothing but this *single* legitimate object of marriage, and only consummation and constituent element of love. What else does the very etymology of matrimony signify? And in what consists the marriage vow, but in the implied and fully recognized act of covenanting with each other to participate together in this ultimate

repast of love? Candidates for matrimony! what but this do you seek and proffer in forming this alliance? Affected prudishness may pretend to frown upon this home truth; but, viewed in whatever light you please, the long and short, warp and woof, and sole embodiment, of both love and matrimony—the one legitimate element, end, motive and object desired and prompted—of either separately and of both collectively—consists in the anticipation and pledging of each to participate this function of love with the other. This is the origin of the marriage RITES. The bridegroom justly thinks himself *entitled* to these rites, because the very act of the bride in becoming his wife consists simply in a surrender of her celibacy, and a pledge to partake in this parental function. And the value set by either party on matrimony is mainly the price set on this repast. *Other advantages grow incidentally out of marriage, but are only incidental.* All depend on this—are its satellites—and grow legitimately out of it.

"This being 'THE tie that binds,' the absence of reciprocity here is of course *the* bane of contention. If similarity in other respects is essential to love, how ALL ESSENTIAL is this the very essence of the marriage covenant and compact? Matrimonial felicity can no more be had without reciprocity and mutual pleasure here, than noonday without the sun, nor can discord co-exist with reciprocity here any more than darkness and sunshine; because they who cannot make each other happy in this, the *ultimatum* of love and marriage, cannot in minor matters; while those who can, will find all the minor causes of discord drowned in this key-note of concord. The *happiness* conferred by each on the other being the sole occasion of love, and reciprocity here being the heart's-core of all the happiness of both love and wedlock—their basis, and frame-work, and superstructure, and *all in all—therefore*, those who are qualified to confer on each other this *summum bonum* of matrimonial felicity, are bound together by the strongest bond of union connected with our nature; whilst those who cannot both confer and receive mutual pleasure in this respect cannot possibly be happy in married life, and consequently cannot possibly love each other; and, therefore, should never enter together the sacred enclosure of wedlock. On nothing does the bridegroom set an equal value. All else in married life is of little value to him compared with reciprocity and happiness here. *This expected pleasure alone prompts marriage.* Oh! if I could catch the matrimonial ear of the whole world, I would say, in the language of this *law of love*, to the blooming bride as she enters upon the nuptial

relations: By all the happiness you are capable of conferring and receiving in married life, note every invitation to this banquet of love and cordially respond. Coldness or squeamishness in love's repast, will dampen your consort's pleasure, and therefore his love, while your cold repulse or petulant refusal persisted in, will be the death-blow of matrimonial felicity to you both—a blasting sirocco to his fondest hopes; for it will force him to drink the mere dregs of the marriage cup, in lieu of the delicious nectar he had so fondly expected to sip at the hymeneal altar. But, if you watch the rising desires of love, and bestow the welcome embrace, you re-enkindle its flame and crown your blessed union with the complete fruition of this the embodiment of all its pleasures.

"But, nothing will sting him so severely with disappointment, despair and hatred, as unsatisfied desire. The reason is this. As already seen, amativeness, the cerebral organ of this passion, bears the most intimate relation to the whole body, and the entire mentality, as the means of the propagation of both. Hence, its gratification abates that burning fever consequent on its unsatisfied cravings, and calms down that irritability of the animal propensities, which always necessarily accompanies its reversed and painful action.

"The precise physiological principle involved, is, summarily this: amativeness bears the most intimate reciprocal relation possible to the body, in order to its propagation, and also to the animal propensities. Hence, gratification sates that feverish, morbid, irritable and depraved state of both this organ and of the whole of the animal propensities, among which it is situated; but its *denial*, fires up to their highest pitch of abnormal and, therefore, depraved manifestation, the whole of the animal region, the body included; and thus produces sin and misery in their most aggravated forms. Fully to enforce this cardinal doctrine, requires the full exposition of that fundamental law of relation subsisting between the various states of amativeness and of the animal propensities. But, assuming this point, behold in it the cause of that bitter hatred and implacable revenge always and necessarily consequent on the cold refusal in place of the soul-inspiring expectation of a cordial welcome!

"This doctrine of the necessity of reciprocity must commend itself to all who have experience concerning it, and requires no other proof; while the uninitiated will find ample proof in the universal fact that those husbands and wives, either one of whom went reluc-

tantly to the hymeneal altar, never lived happily together. Scrutinize all the cases in which either party was over-persuaded by the importunity of the other, or by officious parents or friends, and every identical one, except those in which the requisite reciprocity has been subsequently re-established, which are rare, will be found to have resulted in misery to both. Let this principle and fact effectually warn all against persuading or being persuaded to marry against their feelings. Ardent love in one can never compensate for the loss of it in the other, but only increases the disparity. Warmth in one and coldness in the other is as ice to fire. Reciprocity is indispensable. Those who love each other well enough to marry will need no urging, but will literally *rush* into each other's arms. Then let all beware how they marry unless both LOVE AND ARE BELOVED; because love in one and not in the other is a breach of love's cardinal requisitions, and therefore can never render either happy, but must, in the very nature of things, torment both for life. And let those who are married put forth their utmost endeavors to reinstate, as far as possible, reciprocity in this vital requisition of matrimonial felicity. A few facts:

"From the very hour that Nero's 'wanton dalliance' and desired incest with his mother was interrupted, he plotted her death, and consummated that most revolting matricide with impatient haste and the most infamous cruelty. Potiphar's wife hated Joseph as cordially after he refused her this indulgence, as she loved him before, and solely in CONSEQUENCE of such refusal. This alone converted the frenzy of her love into revenge equally frantic. The story of Amnon and Tamar (2 Sam. xiii.) also establishes and illustrates our position. An enamored widow in New York, similarly refused by an amorous man, because of his filial regard for her venerated husband, from that hour to this, has pursued him with all the artful vengeance of a human fiend. The details of this case are full of thrilling interest. One of the recent cases of *crim. con.* in New York, grew out of a husband's conscientious refusal to gratify his wife in this respect, while fulfilling her maternal relations. This roused her worst passions, and she sought with a paramour what she was denied in wedlock. In short, does this law of love, and law of mind, that refused indulgence engenders hatred, require farther proof, however similar in other respects, or that reciprocity here is the olive-branch of connubial peace, however illy matched in other respects? Need we prove that coldness in the one and ardor in the other, is 'hope deferred' to the former, and repulsiveness to the latter, which necessarily blasts

their mutual happiness, and of course their love? Is not this SETTLED TRUTH—the very summing up of this whole matter?

"Forbearing reader! Condemn not our freedom; because our subject is fraught with the very life and death of all matrimonial felicity. It is one of MIGHTY moment—the great sandbank of matrimonial shipwreck—yet rarely developed. Its chagrined victims rarely tell the fatal secret. It remains to be disclosed by SCIENCE. Besides, reader, you yourself may require to know what you can learn probably no where else. Accept, then, as you prize domestic happiness, the following matrimonial *life-preservers*, in the form of preparatory advice, to all whom it may concern:

"First, to the reluctant wife! For you to *yield*, is to conquer. By showing a desire to do all you can to oblige a beseeching husband, you throw yourself on his *generosity*, and thereby quell that desire which coldness or refusal would only aggravate. Your cheerful submission to what he knows to be disagreeable, at once excites his pity and gratitude, and thus awakens his higher faculties in your behalf, and subdues desire; because, how *can* he who dotes on you take pleasure in what occasions you pain? He takes your *will* for the deed, and loves you therefore too well to insist on so delicate a matter unless agreeable to you also, or to feast himself at your expense. Compliance is a *sovereign* remedy for his importunity, because it *kills his desires*. Remember, you must always yield *cheerfully*, and with a view to *please him*, or else the whole effect will be lost. Never prove remiss, but do all you can to conform. Thereby you will lay your husband under the highest possible obligations of love and gratitude; whereas the unkind *refusal* begets increased importunity, and makes him *insist on his rights*, and threaten you with vengeance if you dare refuse. Abundant excuse, such as the most unreasonable demand on his part, and utter inability on yours, alone should warrant your refusal.

"Husbands! It is now your turn. To *promote desire* is your only plan. To excite those feelings which alone can render your wishes acceptable to the partner of your love, will obviate present repugnance, and render both happy in what otherwise would be a torment to both. *Cultivate the defective faculty.* Apply those perpetual stimulants which you alone can employ, and your wife, if a true woman, will necessarily respond. This element is of right, at least always *ought* to be, comparatively dormant at marriage, and therefore requires to be *cultivated* before its full activity can reason-

ably be expected. This, and this *alone*, can secure your desired boon—alone can obviate the difficulty. It is not for her, but for *you*, to excite *her* to willingness. Nor need you pride yourself on your manhood, unless you can call forth the desires you so much wish Her coldness is *your* fault, mainly. Almost *any* wife whose husband is not repugnant, can be persuaded to all the intensity of emotion necessary or desirable.

"But, mark: this can *never* be done by *blaming* her. By soft words and tender manners *only*. And yet, many husbands think to *drive* their wives to this tender repast by *blaming* them for delays. This is the very last thing that should be done; because this produces disaffection, and disaffection weakens the remaining fragment of love. By thus provoking desire, he can frequently obviate barrenness, which is often caused by want of interest in her. Excite this interest, and you thereby secure offspring—the one object of marriage and end effected by love. In short, "*provoke her to love.*"

Although the foregoing quotations from Mr. Fowler answer very well to show the necessity of physical and amative adaptation, I must entirely disagree with him in the remark, that "all minor causes of discord are drowned in this key-note of concord."

Entire mental adaptation is of all-important to effect a truly *happy marriage*, and Mr. F. advocates the same views in other portions of his work. Without a correspondence in the moral and religious faculties, and a congeniality in the social feelings, conversational and fireside enjoyments are unknown to the married couple. Besides, it is the nature of all animals, human and brute, to feel a sexual indifference after physical intercourse. In fact, some animals are even cross and quarrelsome immediately thereafter. The reason for this is, that, after an electrical equilibrium is established between the two, they are as two positives or two negatives which repel each other. Consequently, to preserve constant harmony, platonic love must step in when passional love has been gratified, until both regain their natural electric conditions.

WHAT IS MENTAL ADAPTATION?

Mental adaptation, in marriage, consists in a perfect correspondence in the tastes, sentiments and propensities of the husband and wife. The organs of Conscientiousness (15), Benevolence (19), Veneration (18), Hope (16), and Spirituality (17), as represented in the annexed cut, impart to the human mind a religious character.

Now, the possession of high moral and religious sentiments by one, and a total destitution of them in the other, is frequently the cause of matrimonial discords and sometimes separations. How can a pious wife enjoy the society of a husband who ridicules, and perhaps forbids, her devotional exercises? How can a devotional husband love a wife who neither sympathizes with, or participates in, his religious sentiments, while, by precept and example, she trains up his children regardless of his cherished principles?

MENTAL ORGANIZATION.

The organ of Inhabitiveness, (4) when largely developed in the human head, gives attachment to home and love of country. A wife, possessing a full development of this organ, can never live happily with a husband whose Inhabitiveness is small and Locality (31) large. He will ever be on the move, like the rolling stone, and the wife must sacrifice her love of home and a permanent location by following in his wake, or else let him go, and content herself in loneliness. Some wives are rendered miserable by the itinerant propensities of their husbands, who are ever changing their place of residence, and hardly remain long enough in one locality to get the curtains up and carpets down. Sometimes it is the reverse, the wife having the roving propensity, and her husband, unless like her in this respect, is annoyed to death with her discontentment.

The organ of Philoprogenitiveness (2) makes its possessor very fond of children. If the wife has this faculty small, and the husband large, the latter is decidedly inclined to find fault with her management of the children, and bickerings arise from this cause. He is passionately fond of his child, while she is inclined to abuse it. She considers children great plagues, and often tries to destroy them before birth, while his tender soul shrinks from the horrible crime of infanticide. As the principal training and care of the child devolves upon the mother, large philoprogenitiveness in the father is not so essential as in the mother. But there is always "war in the wigwam" when the father possesses this faculty large and the mother small.

Adhesiveness (3) is an organ which begets powerful attachments It is the chief prompter of platonic love. It leads persons to seek the society of those who have similar mental proclivities, and seals congenial acquaintance with enduring friendship. If the husband lacks this quality of mind, the wife ever laments his want of fraternal affection—feels that he married her more for the gratification of his animal desires than for her society. If the wife is destitute of this organ, she is generally cold and repulsive, except when aroused by amative excitement. The home circle is robbed of half its attractions, and the husband, unless immersed in business, not unfrequently becomes the patron of the bar-room or the gaming table.

Amativeness (1) is the organ which seeks physical adaptation, and gives rise to passional love. Its nature and office are embodied in what has been previously remarked on reciprocity in love. Mr. L. N. Fowler remarks, "From my extensive observations and knowledge gained by fifteen years travel in all parts of the country, and becoming acquainted with families from various parts of the world, I have at times almost arrived at the conclusion that one-half, if not more, of all difficulties existing between husbands and wives, and premature deaths, are produced by a want of proper adaptation to each other in this organ." By making the amendment, want of this and *physical adaptation*, I agree with Mr. Fowler.

Many husbands and wives possess an equal development of the organ of Amativeness, and still have not the necessary physical adaptation to make each other happy in its gratification. Two persons may possess an equal development of the organ of Adhesiveness, and yet fail to become friends for want of mental congeniality in other respects. So, also, equality in the organ of Amativeness does not *perfect* passional love. The latter is the offspring of amative and physical adaptation.

The Intellectual faculties, which need not here be enumerated, impart keen perception and reflection—lead their possessor to perceive the existence and qualities of external objects, and their relations, and to compare, judge and discriminate. In marriage, the existence of diversity in these organs in the male and female head is not injurious to matrimonial happiness, provided there is aggregative equality. But this is necessary. The possession of large Reflectives by the wife and large Perceptives by the husband, or vice versa, will not entail disrespect for each other's abilities, while the effect of

this diversity upon the mentality of the offspring is beneficial, because it endows it with the faculties of both.

But no wife can respect a husband who is her inferior, and without respect there can be no real love. Nor can an intelligent husband enjoy the society of a wife who is ignorant, and perhaps uncouth. He may be influenced by the impulse of passion to marry such a woman, but he can never truly respect or love her. He will feel dissatisfied to have his children brought up under her influence.

"What can be expected but disappointment and repentance," says Dr. Johnson, "from a choice made in the immaturity of youth, in the ardor of desire, without judgment, without foresight, without inquiry after conformity of opinions, similarity of manners, rectitude of judgment or purity of sentiment? Such is the common process of marriage. A youth and maiden meeting by chance, or brought together by artifice, exchange glances, reciprocate civilities, go home and dream of one another. Having little to divert attention or diversify thought, they find themselves uneasy when they are apart, and therefore conclude that they shall be happy together. They marry, and discover what nothing but voluntary blindness before had concealed; they wear out life in altercations, and charge nature with cruelty."

Passional love, which warms up only at intervals, cannot long render the pair blind to mental disparities. And then, too, when passion has been the governing attraction, and age cools down the impulses of early manhood and womanhood, nothing is left to render their matrimonial relations even tolerable. Therefore, to insure a truly happy marriage, in addition to that amatorial and physical adaptation necessary to promote between two persons of opposite sex strong passional love, there must also exist that mental and moral congeniality which produces hearty friendship—friendship which would be deep and lasting were sexual considerations un thought of.

WHAT IS PHYSICAL ADAPTATION?

Physical adaptation in marriage consists in a perfect dissimilarity in the electrical conditions of the husband and wife. I have shown in the chapter on the "Philosophy of Sexual Intercourse," that every person possesses electricity peculiar to him and herself, and this I have denominated *Individual Electricity*. Now, however large the organ of Amativeness may be in both the male and female head, the

amount of enjoyment which is realized in the sexual embrace must depend upon the electrical differences existing between the two. If the quantity and quality of this element is nearly alike in both, then will intercourse be insipid if not painful, because the sensitive nerves centering in the organs of procreation must be acted upon by an electrical element foreign to their own, in order to produce pleasurable sensations. Any enjoyment which may be derived by the union of two of similar electrical conditions, must arise entirely from the action of the chemical and frictional electricities as explained in the chapter referred to.

SANGUINE TEMPERAMENT.

Nor is it sufficient that one should be positively and the other negatively electrified. The element must be dissimilar in *quality* as well as quantity. "The nature of the current produced by the friction of glass on silk, is unlike that generated by a galvanic battery, and so does the electricity of individuals differ in nature in the same ratio that they differ physically. Each person generates and imparts an animal electrical element peculiar to his or her organization, and differences in organization are named temperaments. Thus, there are four temperaments generally recognized,—the "Sanguine," the "Phlegmatic," the "Bilious," and the "Nervous."

PHLEGMATIC TEMPERAMENT.

Dr. Shew correctly describes the temperaments as follows: "In the *Sanguine* temperament there is fair or moderate plumpness of body and firmness of flesh. This temperament is most favorable to what is ordinarily considered 'beauty of person.' The complexion is fair and rather florid, the skin soft and thin, the eyes blue, the hair auburn, reddish

or light chestnut. The mind is active and excitable, perhaps unsteady; the countenance is animated, and the movements quick; the circulation strong and active, and the pulse full.

"The *Phlegmatic* temperament, as the name signifies, is characterized by roundness, and plumpness of form, softness and weakness of the muscles, more or less obesity, especially as age advances; thick lips, pale skin, light or grey eyes and fair hair. The circulation is languid, the pulse slow and small, and all the functions, bodily and mental, move sluggishly.

BILIOUS TEMPERAMENT.

"In *Bilious* temperament, there is much firmness, and a moderate fullness of flesh, with strongly marked features, and a somewhat rough or harsh appearance of persons generally. The hair, eyes and complexion are dark; the pulse is full, firm, and of moderate frequency. This is the temperament which gives the greatest energy of character, bodily and mental power and endurance.

"In the *Nervous* temperament the form is rather small, the muscles slender, the features delicate, the upper lip thin, the movements quick and the countenance pallid. The movements and bodily functions are active, and the mental and moral manifestations are excitable in a remarkable degree."

NERVOUS TEMPERAMENT.

Now, each one of these temperaments generate an electrical element peculiar to itself. These different temperaments are like so many different machines, and the fact that no two of one temperament are exactly alike in size and feature, also leads us to conclude that persons of the same temperament differ somewhat in their electrical natures. But the greatest difference exists in opposite temperaments.

Two or more of these temperaments are often united in one person. In such a case, an individual should seek a partner in marriage who possesses a combination opposite to his own.

Aside from the more perfect connubial felicity to be derived from the union of two of dissimilar temperaments, the physical effect upon offspring is improving. In fact, the children of parents who are alike in temperament are nearly as likely to be unpromising, physically and mentally, as those begotten in the marriage of blood relatives. The production of good offspring is certainly of the highest importance. "The glory and happiness of a city," says a writer, "consist not in the number but the character of its population. Of all the arts in a city, the grandest is the art of forming noble specimens of humanity. The costliest productions of our manufactures are cheap, compared with a wise and healthy human being. A city which should practically adopt the principle that man is worth more than wealth or show, would gain an impulse that would place it at the head of cities. A city in which men should be trained, worthy of the name, would become the metropolis of the earth," and training amounts to nothing, unless there is a mind and body to train. It is a trite saying, that "you cannot make a man of a pig's tail;" nor can you make a really great man unless there is a good physical as well as mental organization to build upon. Hence the necessity of both mental and physical adaptation in marriage, both for the happiness of the married and the production of healthy and intelligent offspring.

CHAPTER IV.

Laws should Enforce Mental and Physical Adaptation in Marriage.

Does the reader ask how? I reply, by doing away with the present rotten system of legalizing marriage, and substituting therefor a *Board of Phrenologists and Physiologists in every county seat, whose functions shall consist in the power to examine into the mental and physical characteristics of candidates for matrimony—to grant or refuse marriage licenses according to the congenialities of the parties presenting themselves, and to grant divorces to those who are miserably mated in wedlock.* Doubtless every reader will exclaim, "How queer!" But, do not, I beg you, denounce the suggestion until you have given it a little investigation. What does the present system of legalizing marriage amount to? Does it guard the marriage state from cat and dog companionships, or sustain the sanctity of the institution? Not at all. Men and women have only to show that they are of sufficient age to entitle them to enter the relation, and forthwith they are ushered into matrimony regardless of their qualifications to render each other happy.

In this State (New York,) no licenses are granted. All that parties have to do is to present themselves before a priest, judge, mayor, magistrate or alderman, and give notice in the presence of witnesses that they are about to assume the relation of husband and wife, and they are married! But look at the divorce laws; it is almost impossible to dissolve the marriage contract, except for adultery, which must be clearly proven! The marriage regulations of this State may be appropriately compared to the devil, who is said to "lead men into perplexing scrapes, and then leave them to extricate themselves as best they can,"—or, like a rat-trap, always open to go in, but never open to go out.

In States where parties are required to obtain license before getting married, the system is no better. Candidates for matrimony have only to show that they are of age and not married already, and license is granted on the payment of a nominal fee. I read, a few

days ago, of a young girl in a neighboring State, who put the figure 14 in her boots, so as to swear she was *over* that age, when application was made for license! In every State in the Union, men and women can rush into matrimony *ad libitum*, but when once caught they can wiggle and twist like a pig in a fence, but cannot get out. The result is, that monogamic countries are filled with adulterers and illegalized polygamists, who sustain the health and soul destroying institution of prostitution; support in splendor thousands of fashionable courtesans; destroy the peace of the home circle; people our cities and villages with moral and physical lepers; fill our almshouses with paupers; our jails and prisons with criminals; our hospitals with cripples, and our asylums with lunatics. This is so, and every physician in extensive practice, and every intelligent man of wide observation, knows it. How vitally important is it, then, that marriage, which seals the parties contracting it to life-long happiness or discord, and perpetuates in health or moral and physical deformity, the noblest work of God, should be wisely guarded against mismated interlopers, who inveigle each other into the belief that they can make each other happy, when they are entirely destitute of the necessary qualifications to warrant the correctness of the impulsive supposition.

Without precaution in legalizing marriage, easy divorce will not answer. The present system of letting down the bars to every one who wishes to enter, and putting them up securely as soon as the victims are in, and the newly proposed system of *keeping the bars* down for free ingress and egress, according to the changing impulses of mankind, are both lame and open to volumes of objections. I have briefly considered a few bearing against the former, and any one having half an eye can see those effecting the expediency of the latter. In the present state of public morals, libertinism would run rampant if men were permitted to rush in and out of marriage at pleasure. No, this will not do.

If the discoveries of science are of value to the student in pursuit of knowledge, and the business man in the pursuit of wealth, of how much more value may they become, if applied to men and women in pursuit of domestic happiness. It has been shown, in a previous chapter, that physical and mental adaptation is indispensable to a truly happy marriage, and it has also been indicated how adaptation may be obtained.

"Until Phrenology was discovered," says Combe, "no index to mental qualities, that could be safely relied upon, was possessed, and each individual, in directing his conduct, was left to his own sagacity. But the natural law never bended one iota to accommodate itself to that state of ignorance. Men suffered from unsuitable alliances, (and women too); and they will continue to do so until they shall avail themselves of the means of judging afforded by Phrenology, and act in accordance with its dictates."

"Among the members of the medical profession," continues the same writer, "Phrenology has many talented defenders and admirers. Professor Elliotson, of London, declared that 'Gall has the immortal honor of having discovered particular parts of the brain to be the seat of different faculties, sentiments, and propensities.' Mr. Abernethy says, 'I readily acknowledge my inability to offer any rational objection to Gall and Spurzheim's system of Phrenology, as affording a satisfactory explanation of the motives of human actions.' Dr. Barlow, Physician to the Bath United Hospital and Infirmary, alludes to Phrenology as a science in which he 'has no hesitation to avow his firm belief; and which, justly estimated, has more power of contributing to the welfare and happiness of mankind, than any other with which we are acquainted.' Dr. Conolly, lately one of the medical Professors in the London University, and now President of the Phrenological Society of Warwick, says, 'I can see nothing which merits the praise of being philosophical in the real or affected contempt professed by so many anatomists and physiologists, for the science of Phrenology.' Dr. Mackintosh says, 'Although I must confess that I have had neither time nor opportunity to examine the system of those distinguished anatomists and physiologists, Gall and Spurzheim, with that care and attention which the importance of that subject demands, and which might enable me to give a decided opinion respecting the truth of all its parts, yet experience and observation oblige me to state, that much of their doctrines appears to be true, and that science owes a great deal to the labors of the gentlemen who have been engaged in phrenological inquiry.' 'The science,' says Mr. Macnish, 'is entirely one of observation; by that it must stand or fall, and by that alone ought it to be tested. The phrenological system appears to me the only one capable of affording a rational and easy explanation of the phenomena of mind. It is impossible to account for dreaming, idiocy, spectral illusions, monomania, and partial genius, in any other way. For these reasons, and

for the much stronger one, that having studied the science for several years with a mind rather hostile, than otherwise, to its doctrines, and found that nature invariably vindicated their truth, I could come to no other conclusion than that of adopting them as a matter of belief, and employing them for the explanation of phenomena which they alone seemed calculated to elucidate satisfactorily. The system of Gall is gaining ground rapidly among scientific men, both in Europe and America. Some of the ablest physiologists in both quarters of the globe have admitted its accordance with nature; and, at this moment, it boasts a greater number of proselytes than at any previous period of its career. The prejudices still existing against it result from ignorance of its real character. As people get acquainted with the science, and the formidable evidence by which it is supported, they will think differently.' Similar passages might be quoted from other esteemed medical writers; but it is sufficient to add, that Andral, one of the highest medical authorities in Europe, was recently President of the Phrenological Society of Paris; that the celebrated Broussais expounds and defends the science in his lectures; that the Medico-Chirurgical Review, which is unquestionably at the head of the British medical periodicals, has for many years adopted Phrenology as founded in nature; and that a conviction of the truth and importance of the science is daily forcing itself upon many, who, before making themselves acquainted with it, were among its bitter opponents. The simplicity and practical character of the phrenological *philosophy* have induced not a few to doubt the possibility of its being founded on *physiological* error. If, as has been well remarked, the truth and beauty of Gall and Spurzheim's philosophical opinions be admitted, one of two conclusions is inevitable. We must either grant the soundness of the organology from which those opinions sprung, or ascribe to the individuals who first taught them an amount of knowledge and talent which they would have blushed to hear attributed to them, and their possession of which is far more incredible than the entire body of phrenological science."

Phrenology long since ceased to be regarded as a humbug, and is now generally admitted to be worthy the name of Science. The Messrs. Fowler have exhibited commendable ability and enterprise in establishing the claims of phrenology in this country, and to them is the American public mainly indebted for the advancement which this science has made here. Few people of intelligence who

have given the subject the least investigation, now doubt that different phases of character are indicated by the shape of the brain; and, the correctness with which practical phrenologists describe the characters of strangers by examinations of their craniums, decides the question beyond cavil. Now why should not the science of phrenology be made to subserve the interests of mankind; and how, I ask, can it be applied more advantageously than to the improvement of the present objectionable system of marriage? Already many careful merchants resort to its expounders to aid them in the employment of honest and faithful clerks. Then why should not those who are about to take conjugal companions for life avail themselves of its teachings? A clerk may be discharged any day if he proves unsuitable for his place. The contract between his employer and himself can be easily dissolved. Not so the matrimonial contract. How invaluable, then, the science of phrenology can be made in regulating marriage.

It has been shown in the preceding chapter how physical adaptation may be attained in marriage, without resorting to that experimental system recommended by many reformers. The law of temperaments is the legitimate study of physiologists, who should and may be able to tell, as soon as their eyes fall upon candidates for marriage, whether they are physically adapted to each other. If the reader inferred from my opening remarks that I propose the subjection of the parties, applying for a marriage license, to any indelicate exposure of the person to the board of examiners, my meaning was misunderstood. Size, form, complexion, etc., indicate the temperament of an individual, and dissimilarity in temperament denotes physical adaptation.

"Why not," interrupts the reader, "impart to the masses the knowledge of physical and mental adaptation, and let them decide for themselves who are suitable companions?" I certainly can offer no objections to this, but do not the masses need governing in this matter while they are destitute of such knowledge? Beside, a great many are too stupid to ever acquire it. There are persons in every State in the Union who cannot read and write, notwithstanding the educational advantages so universally enjoyed, especially in the New England and middle States. Then, again, thousands of men, of unquestionable intelligence, are so completely engrossed in commercial and other business pursuits, that their attention cannot be diverted for one moment to the valuable teachings of physiology and phrenology.

"But," says another objector, "it would be downright tyranny for a law to exist which would prevent a man and woman from marrying if they were of mature age and had done nothing to debar them the privilege." Would it? What then can be said of a law which compels men and women to live together in a state of open warfare, because, in a thoughtless moment, they appeared before a minister, alderman or magistrate and united themselves in wedlock? The difficulty of dissolving the marriage contract, when once made, is well known to every body who has given the subject any attention. Now, if it is anti-republican to dictate in the choice of companions in marriage, so as to let only those unite who are physically and mentally capable of making each other happy, how much more tyrannical is it to compel men and women to live together who are only capable of rendering each other deplorably miserable. In Switzerland "the native of the Cantons, obedient to the law of nature as well as that of his country, seeks the *permission* of the magistrate when about to unite himself in marriage; and his assent is only accorded when the parties are *fitted by nature, age, and circumstances.* The consequence of this wise legislation is a *hardy and mature race*, capable of every manly effort and endurance." This course is taken without any scientific knowledge of physiology and phrenology on the part of the magistrate, who is rather governed by cultivated perception than by any definite rule which should govern the union of the sexes. Still this imperfect system seems to be better than that which prevails in other monogamic countries, and brings into being a better race of men and women. Thus it is said of the Swiss that "they are indomitable people, who have preserved their independence for five hundred years, surrounded by despotism." If the dictation of a wise magistrate works so well in the Cantons of Switzerland, what great results might we not expect in the counties of the United States, if a board of physiologists and phrenologists were stationed in each, to grant or refuse marriage licenses according to the fitness of applicants.

"Let us have easy divorce laws!" exclaims one. That's right; but, sir, be consistent. Is a remedy better than a prevention? It is an old and truthful adage, that "an ounce of prevention is better thar a pound of cure." Is this case an exception? It is plain that obedience to the laws of adaptation in marriage, will insure domestic bliss, and do away, in great measure, with the necessity of divorce. Now, which should we do—maintain the sanctity of the marriage

institution, or open both the front and back doors, and let thoughtless people rush in and out—one day before the parson, the next before the judge?

Marriage is now considered a *lottery*, but it need not be. The moral, mental and physical characters of candidates for marriage may be completely unmasked to each other if the plan I suggest be adopted. All manner of deceit is practiced by both sexes before marriage to entrap each other. If the lady be religious, then is her admirer a constant attendant at church; he bows his head with reverence in prayer time; converses feelingly on the subject of religion, and obtains a reputation, at least, for morality, be he ever so depraved at heart. Does the lady possess a literary turn of mind—then does he temporarily devote his attention to literature, and pretends to be a laborious student. At the toilet he lays each particular hair where it will show to the best advantage; so does she. If his form is ugly, he bribes the tailor to conceal defects; has nature been stingy in developing her womanly charms, cotton and whalebone are called to the rescue. Many a man has married a supposed armful of female loveliness, which proved to be little more than he could have purchased at any fashionable dry goods store.

Thus is every species of device resorted to in courtship to cover up moral, mental and physical defects, which must all be uncovered in less than one year after marriage. Do you say they get the worst of it as a just punishment for their deceit? No, they don't. The heaviest penalty falls upon the children of such marriages. "How many born of such relationships," says a writer, "are organically prepared for a fretful, joyless childhood, a nervous and uncomfortable maturity, and a stern and heartless old age! Have you never seen a young infant's eyes, that looked as old and sad as if they had been closed by grief?—faces that haunt you with their prematurely sad and earnest gaze? Yes, these effects of unnatural matrimonial relations look us in the face in every community." Nor is the offspring only involved in the wretchedness which follows. Society and religion suffer by such unwelcome contributions to the human race. Then, too, from the disappointed victims of unhappy marriages, prostitution receives its most liberal supporters; and, in fact, every moral department in life shares the penalty.

Were the plan I propose adopted, seldom would it be necessary for the Board to interpose an arbitrary edict. To begin with, men and women, girls and boys, knowing that their mental and physical

peculiarities would be unreservedly disclosed by the officers possessing the exclusive power of granting licenses, would, to a great degree, dispense with artifice in conducting their courtships, and those who did not, would become heartily disgusted with each other's deception, when their characteristics were laid open for their deliberate consideration, by those who were approved judges.

The Board might be delegated with optional powers, and if parties applied who were tolerably congenial, explain discrepancies, and dismiss them to reconisder their proposed union. If a second application were made it might be granted, but put a positive and irrevocable injunction on all who should be found, on examination, *totally disqualified, mentally and physically*, to render each other happy. This would be a signal death blow to thousands of marriages which are now daily taking place for considerations of wealth, influence and convenience.

Seldom is a gentleman and lady so captivated with each other as to render prohibition fatal to the happiness of one or both, unless there is a certain degree of congeniality existing between them. Indeed, I doubt if such a case would occur once in a century.

Young people, full of moonshine, poetry and romance, frequently form attachments which they fancy must be gratified, or their disappointed hopes will drive them to celibacy or the grave. To such of these as were found to have attachments based on the laws of adaptation, the Board could grant license, and the balance, I guarantee, would suffer no greater inconvenience than a few sleepless nights. There is a great deal of "puppy love" amongst this class, which can be easily transferred.

In a previous chapter I denounced the positive interference of parents in the matrimonial selections of their children. I do now, for the reason that such interferences are almost invariably prompted by personal prejudice, favoritism, or by other considerations of a selfish nature. Very few parents understand the laws of adaptation. Their opposition to, or persuasion in favor of, their children's alliances, is not in the least dictated by physiological and phrenological knowledge. A New York Fifth Avenue mother would no more allow her daughter to marry a farmer or mechanic, than she would permit her to become the wife of a Sing Sing convict! When the daughter of a wealthy man in New York recently married her father's coachman, all "snob-dom" was in commotion, and the poor fellow had to go to law to get the custody

of his wife. Frequently farmers and others, who constitute the real bone and sinew of our country, are equally prejudiced against those they term "city fellows," and would put a summary veto on the marriage of a daughter to a "lying lawyer" or a slick-haired dry goods clerk.

Thus is the marriage of men and women now made to conform to their social positions in life. Why not do away with all this, and make it only to conform to mental and physical adaptation? Let parents advise, but pass all dictatorial power over to a Board of scientific men, who can read character as readily as an intelligent man can read a newspaper, and who are also qualified, by their physiological researches, to decide with minute correctness on physical fitness. No marriage should be interdicted by parents, when mental and physical adaptation exists between their son or daughter and his or her selection. But this species of tyranny is daily practiced under existing marriage regulations, and children are often virtually compelled to marry those for whom they have little respect and no love. It is absolutely ridiculous to charge the measures I wish to inaugurate with tyranny, when a worse species of despotism is now constantly practiced by parents and society before marriage, and by the laws of every State in the Union after the parties have been legally united. My plan would not be in the least prohibitive—only *regulative*. It would serve to put a stop to money marriages, which are now of daily occurrence, and which are a curse to the parties contracting them and to their posterity. It would prevent young men from marrying old women, and young women old men. It would prevent young ladies from "marrying homes" and domestic misery. It would prevent "young people from marrying in haste and repenting at leisure." It would prevent rascals from becoming the husbands of virtuous women, and female fiends from becoming the wives of good men. It would prevent selfish mothers from selling their daughters to millionaires. It would prevent intermarriage between relatives, and what is equally as objectionable, intermarriage between persons of like temperaments. But with real affectional marriages, founded on mental and physical attraction, it would not in the least interfere.

As a divorcing power, the organization of boards of examiners on the principle I suggest, would be the very perfection of human legislation. What do law courts know of physiology and phrenology? What qualifications do judges possess to enable them to decide on

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the merits of applicants for divorce? I do not question the value and correctness of their judgment in deciding titles to lands, the guilt of criminals and so forth, but what has the judiciary legitimately to do with matrimonial quarrels, and deciding upon the physical and mental capacities of married people to render themselves happy in wedlock? Legislators, too, who are often appealed to by those who have contracted unhappy matrimonial alliances; what are their qualifications, as a body, to judge of the expediency or inexpediency of decreeing a separation? An amusing specimen of their legislation in matters of divorce was recently given in the Ohio legislature. An unhappy couple in Cincinnati petitioned that honorable body to unloose the fetters which had for *thirty years* bound them to an uncongenial companionship. For ten years they had lived under separate roofs. The petition was referred to the "Committee on Federal Relations," and the *same day* they submitted the following report, which, though calculated to disturb the gravity of the reader, cannot fail to impress every one with the unfairness with which they treated the application:

"The petitioners—James and Maria Sutton—do not sufficiently set forth the cause why they 'mutually severed and parted;' and after a cohabitation of thirty years, it is necessarily very important to know these reasons. They leave an immense range of inference in the minds of this learned assembly. They might have been dissatisfied with each other's personal beauty, or wearied with their respective mutual attractions. They might have been fighting constantly for thirty years, and at last both being exhausted and neither being able to 'come up to time,' they mutually backed out, fizzled and crawled away from the scene of combat. Again, some direful fiend in moustache and patent leather boots may have intruded his fascinating but diabolical figure into their peaceful domestic circle, poisoned the happiness of that shrine, and finally caused a separation between the blessed pair, and connection between his own back and a tough cow-hide. Which of these is the cause the committee are unable to say.

"Again, they are of opinion that two mortal sinners, who have been in purgatory for thirty years, should certainly be put through in one direction or the other, instead of being allowed to return to the terrestrial condition of their former existence. A precedent will be found for this course in the case of 'Orpheus vs. Pluto,' first Pandemonium Reports, 729.

"The committee could see no reason why these evidently ancient turtle doves should not peaceably and quietly pursue the course they practiced for thirty years, and mutually return to each other's bosoms; and would advise this course for reasons as follows:

'For high the bliss that waits on wedded love,
But purest emblem of the bliss above,
Of one fond heart to be the slave and lord,
Bless and be blessed, adore and be adored;
To draw new rapture from another's joy;
To share each pang and half its sting destroy;
To own the link of soul, the chain of mind,
That hearts to hearts, and hands to hands can bind,
For ever and ever. Amen.'

"The committee being, therefore, unapprised of the causes of this separation or its probable monstrous results, can only recommend the House to advise them to 'stick it out' for their brief future of this earth. Whatever their difficulties or 'embarrassments' may be, whether sentimental or constitutional, the difficulties of the legislature are both 'sentimental' and constitutional: as, therefore, this House 'wouldn't if it could' nor 'couldn't if it would,' they recommend the petitioners to the court of Common Pleas, and to beware of bigamy."

Courts of Common Pleas, and all other presently constituted legal tribunals, are not much more considerate in their treatment of divorce cases. In fact the functions of these legal bodies, as evinced by daily observation, are rather calculated to keep people in hot water than to help them out.

A divorcing tribunal should be composed of men who make the sciences of physiology and phrenology their almost exclusive studies. A court of divorce thus organized would not be obliged to summon a crowd of witnesses to divulge all the private affairs of an unhappy married couple applying for relief, as do now the courts of law, where all the privacies of an unhappy marriage are eagerly exhumed for the world to gaze, and scandal mongers to feast upon. It would rely only on the unerring evidences furnished by the mental and physical manifestations of the parties. It would not be necessary for this court to ascertain what horrible conduct one or both had been guilty of, but rather what violations of social and matrimonial relations might be reasonably expected from the union of those uncongenial or antagonistic materials.

Men and women are generally good or bad, according to the circumstances which surround them. A woman may be a devoted and faithful wife if united to a congenial companion, who otherwise would bring disgrace upon herself by the most open violations of chastity. A man who has stumbled into an uncongenial marriage may become the frequenter of the bar-room and bawdy-house, who, had he been united to his true counterpart, would have been a model husband and an exemplary father. The world is full of good bad men and good bad women, who only need assorting, matrimonially, to become happy fathers and mothers and valuable members of society.

It has been said "there are ten times as many fugitives from matrimony as there are fugitives from slavery, and that it may well be doubted if the aggregate or average of their sufferings has been less." I will go further and assert that there are ten times as many slaves in matrimony, under the legal whip, as there are slaves in compulsory service under the overseer's lash! And escape from one is about as difficult as escape from the other. An "underground railroad" exists for both classes of sufferers, but all escapes thereby are violations of law, and do not guarantee permanent liberty to the fugitives. But under present marriage regulations we cannot be surprised that both husbands and wives do frequently avail themselves of it, and secretly seek that pleasure abroad which mental and physical uncongeniality denies them at home. "American society," says Dr. Davis, "is more critical and hypocritical than that of Paris. Hence, *without deserving* it, we get praised for virtue, and the French get cursed for vice." In France the "underground railroad" is tacitly tolerated; in Spain and Italy, openly so; in this country it is tolerated by neither word nor implication, but still has many passengers.

A Licensing and Divorcing Board need be attended with no expense to the State or county in which it is located. If the poorest classes of Mexicans can pay twenty-two dollars as a marriage fee to an exacting priest, cannot the enlightened and industrious men of our prosperous country pay five, ten, or even twenty-five for a marriage license, if so large a fee be necessary to maintain an efficient Board of Examiners? More than that amount is usually expended by every bridegroom in a wedding tour, and, if not in this way, for some other superfluities.

In order to sustain in purity, the monogamic form of marriage, such laws for legalizing and divorcing matrimonial contracts, as will

tend to promote mental and physical congeniality must be enacted. The people of the civilized world have not yet entirely overcome the polygamic propensities inherited from their early ancestors. As has been seen in the first chapter, polygamy is practiced to a surprising extent, in violation of law, in all Christian countries, while it is sustained by the customs and laws of nearly all barbarous and semi-barbarous nations. Therefore, to carry out successfully the monogamic system, and to restrain mankind from practically following in the footsteps of the ancient patriarchs, marriage must be so regulated by law as to secure congenial companionships, and exclude all alliances of an unhappy character.

CHAPTER V.

Three Phases of Marriage Daguerreotyped.

UNDER the present hap-hazard system of legalizing marriage, and with the prevailing ignorance of the laws of physical and mental adaptation, it is not strange that the civilized world is full of ill-assorted matrimonial alliances. I shall attempt in this chapter to daguerreotype three of the most prominent phases of marriage presented in civilized society, all of which would be improved, and the last of which would be most effectually obliterated, if the exclusive power of granting marriage licenses were vested in Boards of Examiners fully qualified, by a proper understanding of physiology and phrenology, to decide upon the adaptedness of parties presenting themselves as candidates for matrimony.

1ST. MENTAL MARRIAGES.

Mental marriages may be defined as those in which social, moral and intellectual adaptation has been secured, with little or no regard for physical adaptation. They may be termed nearly happy, as those which are perfectly happy have been formed under the auspices of both mental and physical adaptation. In all London, a newspaper statistician finds only one hundred and twenty-seven mental or nearly happy marriages. In this country, where wealth and title have less influence with the people in their matrimonial selections, it is reasonable to presume, there is a larger percentage of mental marriages than in England. Still, in free and enlightened America, they are not numerous when compared with those of a more discordant nature.

Mental marriages may also be called friendship marriages, because the parties contracting them are drawn together chiefly by platonic love. Napoleon's marriage with Josephine was a mental marriage. Most people are familiar with the details of this, and it is therefore needless to repeat them here. Such an alliance engenders powerful attachments between the husband and wife, and imparts to each much social happiness. They enjoy each other's presence, and are

lonesome and morose when even temporarily separated. Still, if Amativeness is large or fully developed, entire contentment does not exist, because their want of physical adaptation disqualifies them for the full enjoyment of the sexual embrace.

Singular as it may appear, there are more elopements from this class than from any other. Unable to realize within themselves, to the fullest extent, that sexual gratification enjoyed by those of opposite temperaments, they frequently fall victims to seduction, and become the illicit companions of depraved men and women, whom they find, by bitter experience, are only able to impart to them transitory enjoyments, while the companionships of the intervals, embraced in the ordinary social communications of life, are but wretched imitations of those previously enjoyed with the ones whom they cruelly and unreflectingly abandon. And not unfrequently the little enjoyment they do at first experience, in their new relation, is suddenly interrupted by the discovery that their new companions are not naturally possessed of any more power to make them amatorially happy than their lawful ones, and that the unusual felicity at first experienced with their paramours is wholly attributable to a slight difference in electrical conditions, and vanishes like a dream, when an equilibrium is restored between them.

Barrenness often occurs in mental marriages in consequence of the similarity existing in the electrical conditions of the husband and wife, by which not only sexual enjoyment is curtailed, but also that activity and contractive power of the genital system necessary to reproduction.

"It is a well known law of nature," says Mrs. Hester Pendleton, "that issue follows the union of contrarieties. These contrarieties, it is found, must not only be male and female, but, in the human species, there should also be a *difference in the temperaments*. And hence it has been noticed by one who has given considerable attention to the subject, that those *wives who are of the same temperament as their husbands* are either sterile, or, if they have issue, their children are feeble, and generally short-lived. When, on the contrary, there is the most marked difference in the temperaments of the husband and wife, other things being equal, we usually find the most numerous and healthy offspring."

A French physician once informed me that while practicing in Paris, he was applied to by a gentleman and lady, both of the bilious temperament, and another couple, both of the nervo-sanguine tem-

perament, whose marriages of many years had been fruitless. Both couples being painfully desirous of offspring, he resorted to various remedies to cure their sterility, but without avail. Finally, failing to receive any encouragement from medical treatment, they mutually determined to try and remedy the difficulty themselves by a singular compromise which granted to each dissappointed husband the occasional custody of the other's wife. The elapse of a few months indicated that the novel experiment was successful, and at the expiration of the natural time both were presented with heirs! This instance answers better for an illustration of my position than for an example worthy of imitation by others. The expedient is more consistent with the French standard of morality, than with that of ours; and yet, I am informed that it is sometimes resorted to in the large cities of the United States. The results of my practice have proved that sterility produced by a want of physical adaptation can usually be cured by electrical remedies, as well as much of the sexual indisposition arising therefrom. (See Card to Married People.)

Desire for offspring is, with few exceptions, common to all married people, as well as a passion for sexual enjoyment, and hence it is natural that more or less discontentment should exist when the electrical or temperamental conditions of a husband and wife so nearly correspond as to deprive them of one or both. It is not therefore surprising that mental marriages, which insure to the parties contracting them an immense amount of social happiness, do not yield that unadulterated connubial felicity which is obtained by marriages based on physical as well as mental adaptation. There are very few of the latter; perhaps one in a thousand. There would be more if the system of granting marriage licenses which I propose were established. Two persons, mentally adapted, applying for a marriage license, should not be positively refused, but they should be advised, and the point wherein they lack entire congeniality explained. Many intelligent lovers would thereupon withdraw their application, and seek out more congenial companionships on the principles demonstrated to them by the board of examiners; the majority would undoubtedly persist in their application, for "love is blind." Still, it were well if a few of this class could be influenced to form perfectly happy alliances, for discontent, elopements and infidelities, will assuredly take place, to some degree, when mental adaptation only is realized.

2D. PHYSICAL MARRIAGES.

These are composed of males and females well mated physically, with little or no mental adaptation. They may be termed tolerably happy marriages. It is estimated that there are three thousand one hundred and seventy-five thus united in London. The average is larger in this country, for the reason before explained, that social equality is not enjoyed to so great a degree in the European as in the American States.

In physical marriage, many obtain all the happiness which they imagine matrimony can yield. Sexual intercourse is generally enjoyed, to the fullest degree, by one or both parties, according to the equality, size and activity of their amative organ, and the state of their corporeal health. In these marriages, husbands seldom find social attractions at home, but spend their evenings in business, in political caucuses, masculine gatherings of various kinds, or at the gaming-table or club-room. They are sometimes seen riding or walking, with closed lips, in company with their wives; and they have been known to hold conversation with them in public. But usually all evidence of conjugal affection, as well as all positive evidence of discontent, manifests itself only in the privacy of the bedchamber. They are seldom seen together in social gatherings, public entertainments, or at any time; and if they are, a kind of mutual indifference is discernable to a penetrating observer. Still, without important interruptions, they sail down life's troubled stream with considerable smoothness, and in the society of friends, at least, profess attachment to each other, which, in part, exists, while the world regards them as good citizens and happy people. The libertine is not as apt to bear off a prize from this class as from the first considered, though his attentions are not unfrequently encouraged, and his licentious propensities gratified. The unfaithful wife finds in his embrace an agreeable variety, resulting from the difference existing between his individual electricity and that of her lawful partner, to whom she has become accustomed. The husband, unless possessed of a consistent religious character, or great veneration for civil law, does not regard infidelity on his part as a crying sin, and still could not tolerate it in his companion. Elopements are very rare, because it is necessary that one or the other should experience, with a third party, sexual enjoyment never experienced before, to sufficiently prepare him or her for the sacrifice of early associations, friends and reputa

tion at the altar of lust. It requires sexual intoxication to drive people to such an extremity, and nothing can produce this madness except a conviction that a husband or wife is incapable of gratifying his or her amative desire, while it has been found by experience that another can. Consequently, separations seldom take place in physical marriages, except by divorce, which are not uncommon, as infidelity on the part of either is liable to detection, and, on the part of the wife, unendurable!

Physical marriages are prolific, except when disease or sexual excess has weakened or destroyed the tone of the reproductive organs. The children of such unions are usually physically strong, but are apt to be unbalanced and distempered in mind.

Marriages of this kind, it would not be expedient to legally interdict, but the good counsel of an intelligent board of examiners might influence many intelligent persons presenting themselves for license, to seek more congenial alliances. The ladies, particularly, who think so much of attentive husbands, if convinced that their lovers are mentally so uncongenial as to probably become negligent after marriage, would be decidedly inclined to back out of all foolish engagements, when advised by a competent board of examiners. When there is in almost every community a true "Jack" for every "Gill," it is a great misfortune that there should exist so many ill-assorted marriages, by which husbands are rendered negligent and wives lonely and miserable.

Dr. Ryan probably had his eye on marriages of this class when he penned the following: "Every imperfection, capricious temper, vanity, folly, &c., appear in the married state. The demeanor towards the world is agreeable and obliging, but, in domestic life, the mask is thrown off, and an individual appears such as he or she really is. Hence it is incredible how much a wife has to bear from a husband who is capricious, haughty, choleric, dyspeptic, and intractable; or what a sensible husband has to endure from a silly, unreasonable and intractable wife. *It is difficult for married persons to acquire each other's tastes, feelings and opinions.*"

This last remark contains a volume of truth. The writer might have said it is *impossible* for a husband and wife to *acquire* each other's tastes, &c. The only sure way to realize a correspondence in this respect, is to marry with due reference to mental adaptation; by so doing, similarity in sentiments is *natural*, and the impracticable task of *acquiring* is done away with.

3D. LUCIFER MATCHES.

These may be defined marriages contracted without regard to physical or mental adaptation. The civilized world is full of such. "The motives which influence a majority of the world in contracting matrimonial unions," says Dr. Ryan, "are generally false, selfish, and most detrimental to the procreation of sound and vigorous offspring; such as ambition, wealth, rank, title, interest, a love of independence, of an establishment, a desire to escape parental restraint, anger, a determination to disinherit relations, disdain for a faithless lover or mistress, necessity, obligation, passion, imitation, and very rarely the only proper motive, pure and virtuous affection."

In this division we find old men with young wives, and old ladies with young husbands. I have now in my mind's eye a man of thirty-five, who has a wife of fifty-five or sixty. They quarreled desperately for several years, under one roof, but finally the young husband left her bed and board, and the two have since kept up the warfare in courts of law. They alone have not suffered the penalty of their discordant union, but friends on both sides have been involved in the legal quarrels which have resulted therefrom. The health and once honorable character of the husband has been ruined; his wealth absorbed by lawyers and judges; and the reputation of many of his friends compromised by his subsequent open licentiousness.

Ladies who "marry homes" sometimes stumble into mental or physical adaptation, but not often. I have in mind several who have not married *peaceful* homes. "Family jars" are of almost daily occurrence, and disease marks the countenances of the unhappy wives. Their physician knows their wretchedness, but the world little dreams of it.

Those who are influenced by wealth in forming their matrimonial alliances are seldom so fortunate as to get congenial companions. Men will sometimes marry ladies for whom they cherish not one spark of affection, in order to secure wealth. Mr. L. N. Fowler gives a rich illustration of this class, as follows: "Mr. M. of O. married a lady from the city, and carried her to his home. He thought her father rich, and probably was sanguine in his hopes and anticipations. When they had been married some time, it was rumored that his father-in-law had met with losses which would involve his property. So he took his 'Cara Sposa' back to her father's mansion. She had not been there long, before her father's

affairs turned out more prosperously than was anticipated. Then the good husband retraced his steps to the city to take his wife back again; but it was *no go;* the father said nay."

Ladies often marry rich gentlemen for whom they hardly feel respect, thinking that a luxurious home and a fat purse will compensate them for all the misery they will have to encounter in eating and sleeping with an odious husband. They find experience a dear teacher, and, in this case, one from whose tuition it is difficult to escape.

Gold kidnaps many fashionable ladies, and subjects them to slavery the most abject. The visions of pretty dresses which flit through their minds, when a wealthy man proposes, perfectly bewilder their usually keen perception, and they seldom recover from their infatuation until the cruel trap is sprung, and they are prisoners in uncongenial matrimony. A majority of these wives would readily exchange situations with the prostitute but for the loss of reputation which such a step would incur, for they are constantly obliged to submit to the embraces of a man whom they hate, while the trafficker in lust sometimes enjoys the embrace of one she can love. Ladies can entertain no greater delusion than that wealth alone can make them happy in matrimony.

The trade of acquiring wealth makes many men stingy, and it is not uncommon for the wives of wealthy men to carry light purses. It is particularly galling to the female who has been seduced into an uncongenial marriage, by the attractions of riches, to find her husband parsimonious as well as ugly. Still, such is often the experience of ladies who marry golden husbands. A sad instance of this kind is related by Mrs. Nichols. Here is the affecting story as she gives it:

"A most gentle and noble creature was my friend ten years since. I have seldom seen so great material and spiritual beauty as she possessed. Her presence seemed to hallow all places, so pure, so truthful, so charming her life. She was the daughter of a widow who lived in poverty in a remote country town, and she was induced to accept a man as her husband who was wealthy and educated, and could give her an elegant home and the society of a city. She was very young when she married, and she was at once separated from her mother and friends, for her husband was so miserly that he would have grudged twenty-five cents given to any one, friend or foe, forever. He took her to a fashionable home, but the griping poverty in which she lived there was known only to herself, and those who were so placed for observation that they could not but see. The husband was not unkind,

not ignorant, not an unpleasant man to those about him, but pinching meanness was a habit with him that involved all his life. The wife was in all things disappointed. She knew that her mother, whom she loved adoringly, was sewing for a living when she had no strength to sit up, but lay and sewed in bed; that she was alone, dying very slowly of consumption, without even the comfort of a letter from her daughter, because of the expense of postage, which this lady could not get money to pay, though she lived in a house worth thousands of dollars. If she had married with the hope of sustaining her mother, or having her with her, how bitter was the disappointment.

"The young wife bore her heavy burden in silence—oh! how many burdens are thus borne!—till her health failed. She bore three children in rapid succession, and with suffering that only a mother can know, and then commenced having miscarriages and abortions. She begged her husband to allow her to come to me and have the benefits of water-cure. I was sure I could cure her if I had her away from her destroyer: but he was her legal owner, and for six years she died constantly. Six times she miscarried or aborted, and a sickening horror of her false relation of soul and body, a daily and hourly misery, and constant flooding, was her lot. Her peerless beauty faded, and her glorious life became nearly insanity at times; and again a resigned and almost torpid idiocy seemed to possess her.

"Every effort was made by her friends to induce the husband to place her under my care, but in vain. He asserted his ownership to her latest breath, and after twelve years of agony and resignation, a human soul was blotted out, and the lifeless clay, beautiful to the last, was alone left to him who never had a thought but that she was his property as much as his horses or his house. He would have punished any infidelity to the marriage bond as he would have punished the thief of his horses, or the incendiary who had burned his dwelling—and yet his presence had been a hateful horror to his wife. She had been his victim, by far worse used than his harlot would have been had he been so immoral as to keep one, but he was not. He was a rich, respectable and moral murderer, who had probably no more idea of his true character than society had. He had only starved his wife in her sympathies, and made her the slave of his senses, whilst he lived in his business, his dollars, his dinners, and, what is called, domestic life, receiving much sympathy that his beautiful wife was always sick and sad, and not pleasant company."

Marrying to please relatives rarely secures mental or physical adaptation. Parents do not realize how much misery they frequently bring upon their children by persuading them to marry those for whom they feel no attraction. Were the legal guardians of the young as well instructed in physiology and phrenology as they frequently are in many studies of a less useful nature, their interference in the matrimonial selections of young people would be more excusable. But their objections to one or preferences for another are generally the result of selfish motives, without regard to fitness.

A lady of considerable personal beauty and good education once called on me, in Cincinnati, to consult me regarding her rapidly declining health. I found, on examination, that her nervous system was terribly deranged, and that there was every appearance of approaching insanity. I knew she must be laboring under constant mental excitement, and interrogated her as to the cause. She was the victim of an unhappy marriage, formed at the instigation of friends. From her story it was apparent that neither physical or mental adaptation had been realized, for she did not give birth to a child till she had been married nine years, and her husband's society to her was anything but agreeable. She was rather religiously inclined, while her husband was a profane wretch. He would make her blood thrill with the most horrid imprecations, without the least provocation. Although a prosperous merchant in respectable standing, she was never allowed a dollar in money, and almost suffered for the want of comfortable clothing for herself and child. She would have left him had one of her relatives been in circumstances to have afforded her a home; for her health was too far gone for her to think of self-maintenance; and, rather than have them suffer the unhappiness they would have done, had they known her matrimonial trials, she kept them profoundly ignorant of her miserable situation. I was the only one to whom she had ever confided her infelicity, and the tears gushed from her eyes like water from a fountain, while she related the sorrowful tale of her sufferings. But her case is no more affecting than hundreds which have come under my observation. Nor does my experience differ from that of any physician in large practice. The world is full of "Lucifer Matches," and the wretchedness they entail destroys health; hence, to the physician is revealed the infelicity in married life.

The poet Milton's first marriage, belonged to the Lucifer class, I should judge, from the following extracts from his life and writings:

"In his thirty-fifth year, Milton married Mary, the daughter of Mr. Powell, a justice of the peace in Oxfordshire. After an absence of little more than a month, he brought his bride to town with him, and hoped, as Johnson observes, to enjoy the advantages of conjugal life; but spare diet, and hard study, and a house full of pupils, did not suit the young and gay daughter of a cavalier. She had been brought up in a very different society; so, after having lived for a month a philosophic life, after having been used at home to a great house, and much company and joviality, her friends, possibly at her own desire, made earnest suit to have her company for the remaining part of the summer, which was granted upon a promise of her return at Michaelmas. When Michaelmas came, the lady had no inclination to quit the hospitality and delight of her father's mansion for the austerer habits and seclusion of the poet's study.

"Milton sent repeated letters to her, which were all unanswered; and a messenger who was despatched to urge her return, was dismissed with contempt. He resolved immediately to repudiate her, on the ground of disobedience; and, to support the propriety and lawfulness of his conduct, he published 'The Doctrine and Discipline of Divorce.'"

There is one passage in this treatise in which Milton clearly points to himself, and to the presumed causes of his unhappiness: "The soberest and best governed men," he says, "are least practiced in these affairs; and who knows not that the *bashful muteness of a virgin may oftentimes hide all the unloveliness and natural sloth which is really unfit for conversation*? Nor is there that freedom of access granted or presumed, as may suffice to a perfect discerning, until too late; when any indisposition is suspected, what more usual than the persuasions of friends, that acquaintance, as it increases, will mend all? And lastly, is it not strange that many who have spent their youth *chastely, are, in some things, not so quick-sighted, while they haste too eagerly to light the nuptial torch*? Nor is it, therefore, for a modest error, that a man should forfeit so great a happiness, and no charitable means to relieve him, since *they who have lived most loosely*, by reason of their bold accustomings, *prove most successful* in their matches, because their wild affections, unsettling at will, have been so *many divorces to teach them experience*. Whereas, the sober man, honoring the appearance of modesty, and hoping well of every social virtue under that veil, may easily chance to meet with a mind to all other due conversation inaccessible, and to the more estimable

and superior purposes of matrimony useless—and almost lifeless and what a solace, what a fit help such a consort would be through the whole life of a man, is less pain to conjecture than to have experience." He speaks, again, of a "mute and spiritless mate;" and again, "if he shall find *himself bound fast to an image of earth and phlegm*, with whom he looked to be the copartner of a sweet and gladsome society."

Observation corroborates the truth of Milton's remark, that "they who live most loosely, by reason of their bold accustomings, prove most successful in their matches." I have often remarked the mental and physical adaptation existing between gamblers and their wives, and other characters of more notoriety than good reputation. "One-eyed Thompson" and "Bill Poole" were represented as most devoted husbands and kind fathers. No husband ever penned a more affectionate and affecting epistle than that which Thompson wrote his wife just previous to his suicide.

The tenacity with which the wives of bad men cling to their husbands, when imprisoned for crime, is also an illustration of the correctness of Milton's remark. Many a wife of a respectable husband, in good standing in society, would consider it a most fortunate circumstance, if the latter were incarcerated in prison long enough to give her a chance to escape from the thralldom of uncongenial matrimony.

Milton advocated easy divorce; so do I. But I would have both the front and back gates of matrimony under the care of competent men, whose physiological and phrenological acquirements qualify them to admit and release people with particular reference to mental and physical adaptation. By this wise arrangement all "Lucifer Matches" would be interdicted, and the happiness and longevity of the human family immeasurably increased.

CHAPTER VI.

Philosophy of Elopements.

ELOPEMENTS are becoming so frequent, in both high and humble life, that Part II. would be incomplete without an investigation into their causes. Over five hundred occurred in the United States during the year 1857.

It is common to ascribe elopements to human depravity, but I am disposed to attribute them to human ignorance. Our public schools make good historians, good mathematicians, good grammarians, good geographers, good ministers, good lawyers, and poor doctors, but no physiologists or phrenologists; and parents are generally poorly qualified to impart that knowledge to children which institutions of learning so universally withhold. Hence, I claim that ignorance of the valuable sciences of physiology and phrenology, and consequent non-conformity to the law of physical and mental adaptation in marriage, is the chiefest cause of elopements. The law of adaptation in the marriage of men and women is the same as the law of affinity in the combination of substances. "By experiment," says Comstock, "we know that some bodies have an affinity to each other; that is, we know that on presenting them to each other under certain circumstances they will combine and form a third substance which differs from either of the first. We know also by the same means that other substances, when presented together in the same manner, will repel each other; that is, they will not combine, nor can they be made to unite so as to form a third substance. In a great variety of instances, after two substances have combined, when mixed alone, or without the admixture of any other substance, *this first union may be destroyed by the intervention of another, or a third substance, having a stronger attraction for one of these substances than they have for each other.*"

Now in this law of chemical attraction or affinity, we have an illustration of the law of mental and physical adaptation. By both observation and the teachings of science, we know that a male and female having adaptation or affinity, under certain circumstances, when pre-

sented to each other, will unite and form what is termed a marr ed couple. We also know that there are males and females who, wher presented together, repel each other like oil and water, but who may be induced to unite by adding a pile of gold, the same as oil and water can be made to unite by the addition of alkali. Again, we know that a male and female, tolerably adapted, may be made to unite, and that this first union may be destroyed by the intervention of another, or a third party, having a stronger mental and physical attraction for the husband or wife than they have for each other.

In chemistry, alcohol may be married to gum camphor, the combination being called spirits of camphor; but if water be brought in contact with this marriage the alcohol will straightway elope with the water and leave the camphor a grass widower. This same law is, to a great extent, obeyed by human beings, and elopements are usually first caused by the non-observance of the law of mental and physical adaptation in marriage, and secondly by the discovery, by one or the other, of a person for whom he or she feels a greater attraction. Let us suppose Mr. A. to be a man of the bilious temperament, with large acquisitiveness, small benevolence, small ideality and small intellectual faculties. He marries Miss B. who is also of the bilious temperament, with small acquisitiveness, large ideality, large benevolence and large intellectual faculties. Now the similarity between their physical organizations disqualifies them to make each other happy sexually, while the dissimilarity in their mental characteristics destroys their social happiness. After a few years or months Mr. C., a gentleman of nervous temperament, full of ideality, benevolence and intelligence is introduced to the family. He finds Mrs. A. a most agreeable woman and Mrs. A. is perfectly captivated with Mr. C. Now is it not apparent to every reader that it is perfectly *natural* for Mr. C. to run away with Mr. A.'s wife, and for Mr. A.'s wife to be entirely willing that Mr. C. should? Just exactly as natural as it is for the water to unite with the alcohol in the spirits of camphor, leaving the camphor to take care of itself.

But let us suppose a case in which mental adaptation has been observed. Mr. Smart, a gentleman of the nervo-sanguine temperament and full development of the social and intellectual faculties, marries Miss Prim of a corresponding temperament and mental characteristics. They are perfectly happy in their social relations, but not so in their sexual, because their correspondence in temperament renders their electrical conditions similar. Mrs. Smart feels

nothing magnetic in the touch or presence of Mr. S., nor does Mr. Smart feel the least pleasurable emotion in contact with Mrs. S., further than that engendered by platonic love. They are as two negatives or two positives in their physical relations. In course of time Mr. Villain becomes an acquaintance of Mr. S., and is introduced to the good wife. This Mr. V. is of the phlegmatic temperament, with social and intellectual faculties corresponding with Mr. S. and his lady, which latter make him an agreeable friend. He may be entirely destitute of the moral and religious organs, but Mr. and Mrs. S. do not know that, for they have never investigated "that humbug" Phrenology, and Mr. V. is not going to tell them he is a scamp. The new friend being of an entirely opposite temperament to Mrs. S., the electrical conditions of the two are totally unlike, and the latter experiences a strange happiness in his magnetic atmosphere. Anon, the community is perfectly thunderstruck to learn that the accomplished and amiable Mrs. S. has actually eloped with Mr. V., leaving her devoted and highly respected husband disconsolate. Every body marvels, but they would not if the law of affinity in all its bearings, or the law of mental and physical adaptation, was understood.

"Prof. Silliman mentions that in June, 1823, he crossed the Hudson at Catskill, in company with a friend, and was proceeding in a carriage by the river, along the road, which is there very narrow, with the water on one side, and a steep bank, covered by bushes, on the other. His attention at that place was arrested by observing the number of small birds of different species, flying across the road and then back again, and turning and wheeling in manifold gyrations, and with much chirping, yet making no progress from the particular place over which they fluttered. His own and his friend's curiosity was much excited, but was soon satisfied by observing a black snake of considerable size, partly coiled and partly erect from the ground, with the appearance of great animation, his eyes brilliant, and his tongue rapidly brandishing. This reptile they perceived to be the cause and centre of the wild motions of the birds. The excitement, however, ceased as soon as the snake, alarmed by the approach of the carriage, retired into the bushes: *the birds did not escape, but, alighting upon the neighboring branches, probably awaited the re-appearance of their cruel tormentor and enemy.*" The snake was "charming" the birds, and this word "charming" is another expression for magnetizing. In a similar manner men charm

or magnetize ladies of opposite temperaments, and run off with them. But my object in quoting the Professor's anecdote is to remind the reader how very similar the conduct of some ladies is to that of the birds in the story. They did not escape when they could. In a similar way ladies often tamper with the electric powers of gentlemen, as if to see how far they can go without actually becoming their victims. In this way, ladies of religious principles sometimes astonish the church and society with elopements. When the libertine begins to exercise his magnetic powers to overcome their chastity, they do not think for a moment that there is a probability of their yielding; but his atmosphere is agreeable, because magnetic, and so is his touch; consequently they will, in a measure, encourage his advances. It is in this way that a married woman who wishes and intends to be virtuous will sometimes tempt herself in the presence of a libertine, till all at once she is overpowered. A sense of remorse seizes upon her mind, and is aggravated in the society of her husband, because she knows she has deceived him; and, with this unpleasant reflection, his society becomes painful rather than agreeable. In such a state of feeling it is not difficult for her paramour to persuade her to elope. The birds alluded to should have flown off when the magnetic spell was broken, if they did not want to be swallowed by the reptile, and so with ladies; if they do not wish to succumb to the magnetic powers of the seducer, they should avoid his presence, and, above all, contact with him.

Ladies, too, often magnetize gentlemen of the opposite temperament, and make them do many foolish things—sometimes persuade them to run away from helpless families. Now all these evils, and those before adverted to, may be, in a great degree, avoided, if the law of mental and physical adaptation be observed in contracting marriage. Where perfect affinity or congeniality exists, no third party can be more affinitive or congenial.

It is nevertheless true that congenial marriages may sometimes be broken up by ignorance of the philosophy of sexuality, as treated in Chapter II. It is a common error with many husbands and wives to flatter each other that the animalism of marriage could not possibly be enjoyed with any other persons than themselves. This, so far from being true, is entirely the reverse. The almost constant contact in presence or person of a husband and wife does not allow either to fully regain their native electrical conditions, in consequence of which a person less congenially adapted physically, may actually

possess a higher degree of electrical adaptation for either than exists between themselves. This, however, could only exist temporarily, if the two persons were allowed to come in frequent contact. But ignorance of this fact, sometimes willful and oftener otherwise, is the cause of elopements. A husband indulges in an illicit amour with a woman perhaps less physically adapted to himself than his wife; but never before having come in such immediate contact with her, the electrical conditions of the two are more dissimilar than those existing between himself and wife, who have perhaps eaten and slept together for years; the deluded man at once supposes his unlawful partner better capable of making him happy than his own wife, and an elopement is the result. A week or a month will suffice to bring about an electrical equilibrium, and the foolish fellow would gladly return home if his wife and society would but give him a cordial and forgiving reception. Wives, ignorant of this same philosophy, sometimes become unfaithful, and elopement is generally the result, unless they be so situated that infidelity cannot be detected by injured husbands. Under the last named circumstances the wife has an opportunity to learn the physical uncongeniality of her paramour before she takes the bolder step. Between persons of corresponding temperament, an equilibrium and a similarity in electrical conditions is soon induced, and unhappy indeed must be the wife who abandons a more congenial husband for a less congenial paramour, while under the intoxication of sensuality resulting entirely from temporary dissimilarity in electrical conditions. It is high time that men and women understood the philosophy of sexuality. Such knowledge would tend to make husbands and wives more faithful to each other, and greatly aid in the prevention of elopements.

Negligence in dress and in preserving a good personal appearance, on the part of married people is sometimes the cause of elopements. "It is no uncommon thing," says a writer, "for women to become *slatternly after marriage*. They say that they have other things to attend to, and dress is habitually neglected—except, perhaps, on great occasions, when there is a display of finery and bad taste abroad, to be followed by greater negligence at home. Great respect is shown to what is called 'company;' but, apart from this, there is a sort of *cui bono* abandonment, and the compliment which is paid to strangers is withheld from those who have the best right to claim, and are most likely to appreciate it. This is a fatal but too common error. When a woman, with reference to the question of personal

adornment, begins to say to herself, 'It is only my husband,' she must prepare herself for consequences which, perhaps, she may rue to the latest day of her life.

"*The effect, indeed, of attention or inattention to dress*—and we include in the one little word whatever contributes to personal comeliness and attractiveness—*upon the domestic happiness*, especially of the lower and middle classes, cannot easily be overstated. The *placens uxor*, as we have said, is no small part of the totality of home. If a man finds that he has not secured what he believed he had married, he has a right to feel disappointed. We do not say that he has a right to retaliate. The obligations of the connubial contract are not conditional, but absolute. Negligence on the one side does not excuse negligence on the other; but it will very surely induce it. When there is nothing attractive at home, a man, however inexcusable such conduct may be, will seek it abroad, whether at the ale-house, the club, the theatre, the gaming-table, or only in what is commonly called 'society.' We do not mean to say that dress alone is the agency by which the erratic propensities of husbands are to be restrained, but that it is a *highly important part of it*. Indeed, it may be asserted that the absence of attention to this matter presupposes the absence of almost all other gentle, kindly and attractive qualities.

"A man marries, indeed, for the sake of the '*domus et placens uxor*.' He does not take a women to his hearth because she is a philosopher, or an arithmetician, but because, in homely language, there is 'something nice about her.' It was, doubtless, the design of the Almighty, in giving man a helpmate, that she should satisfy his natural craving after the beautiful, the graceful, and the gentle. For this was woman formed:

> 'For softness she and sweet attractive grace.

The woman who forgets this, ignores one of the great objects of her creation. *The wife, who forgets this, violates one of the primeval conditions of the connubial contract.*" In justice to the wife it should be said that she does not always violate this condition voluntarily. Her husband may be a stingy piece of meanness, who will not furnish his (literally) *better half* with the time and means to make herself beautiful, graceful and gentle. So far as practicable, however, the wife should endeavor to make herself prepossessing to her husband as well as to outsiders.

Men, too, often become careless in their dress and manners after marriage. They flatter themselves that their market is made, and that there is no further necessity for honied words, cleanly person, and good clothes. The trap of matrimony sprung, and the two not unfrequently put on "old duds" and commence making grimaces at each other. Now, who is surprised to hear that one or the other, espying a more attractive person in another cage, or basking in "single blessedness," breaks out and runs off with the new object of his or her love?

Negligence after marriage is, however, generally the result of physical and mental unadaptedness, from which springs nearly all infidelity in the state matrimonial. Let wise legislation remedy this evil, and we may with certainty look for less connubial infelicity and fewer love elopements from the ranks of the married.

CHAPTER VII.

Intermarriage of Relatives.

"ANOTHER natural law in regard to marriage, is," says Combe, "that the parties should not be related to each other in blood. This law holds good in the transmission of all organized beings. Even vegetables are deteriorated if the same stock be repeatedly planted on the same ground. In the case of the lower animals, a continued disregard of this law is almost universally admitted to be detrimental, and human nature affords no exception to the rule. It is written in our organization, and the consequences of its infringement may be discovered in the degeneracy, physical and mental, of many nobles, and royal families, who have long and systematically set it at defiance. Kings of Portugal and Spain, for instance, occasionally apply to the Pope for permission to marry nieces. The Pope grants the dispensation, and the marriage is celebrated with all the solemnities of religion. The blessing of Heaven is invoked on the union. The real power of his holiness, however, is put to the test. He is successful in delivering the King from the censures of the church, and his offspring from the civil consequences of illegitimacy; but the Creator yields not one jot or tittle of His law. The union is altogether unfruitful, or children miserably constituted in body and imbecile in mind are produced; and this is the form in which the divine displeasure is announced." In Turkey it is said of a simpleton, "he is of the Emirs." The Emirs constitute the hereditary nobility, and are the descendants of Fatimah, the daughter of Mahomet. They have intermarried so long and extensively that their imbecility has become a by-word even among those who revere the memory of the prophet.

In this country, intermarriage between relatives is practiced to an extent which calls loudly for legislative interference. Authoritative statisticians have shown most plainly that a large per centage of the insanity and idiocy found in our asylums is attributable to this violation of nature's law,—and how many other diseases are produced thereby it is difficult to estimate. Speaking of the physical effects

of intermarriage between blood relatives, the editor of the Fredericksburg News says, that, in the county in which he was raised, "for twenty generations back certain families of wealth and respectability have intermarried, until there cannot be found in three or four of them a sound man or woman! One has sore eyes, another scrofula, a third is an idiot, a fourth blind, a fifth bandy-legged, a sixth with a head about the size of a turnip, with not one out of the number exempt from physical defects of some kind or other."

The reason why such marriages are injurious to offspring is plainly indicated in previous chapters, showing the necessity of physical adaptation. If two persons of the same temperament are nearly alike electrically, how much more so are two individuals of the same blood, particularly, if of the same temperament also. I have no doubt that, in all cases in which the children of full cousins entirely escape mental or physical disease, their parents happen to be of opposite temperament. At least my observation sustains this hypothesis. I have seen brothers and sisters so entirely unlike in temperament as to be less nearly related to each other, physically, than to many persons not at all consanguineous. Such cases are rare, but it is nevertheless true they do sometimes occur. This condition oftener exists between cousins. But even when cousins do entirely differ in temperament, there is one weighty reason why they should not intermarry, viz: *their inherited predispositions to disease are generally similar, in consequence of which the predisposed infirmity will almost assuredly be developed in the offspring.* When there is no such predisposition, and they are of opposite temperament, the objection to their intermarriage is not, perhaps, well founded.

Combe says that "in Scotland, the practice of full cousins marrying is not uncommon; and you will meet with examples of healthy families born of such unions, and from these an argument is maintained against the existence of the natural law which we are considering. "But," continues the same writer, "it is only when the parents have both had excellent constitutions that the children do not attract attention by their imperfections. The first alliance against the natural law, brings down the tone of the organs and functions, say one degree; the second two degrees; and the third three; and perseverance in transgression ends in glaring imperfections, or in extinction of the race. This is undeniable, and it proves the reality of the law."

"It is thought," says Dr. Elliotson, "that a cross within the same nation is always desirable, but that a *cross between two nations begets* offspring superior to either. The importance of crossing an inferior nation with a better, is shown by the great improvement of the Persians, who were originally ugly and clumsy, *ill-made* and *rough-skinned*, by intermixing with the Georgians and Circassians, the two most beautiful nations in the world."

"There is hardly a man of rank in Persia," says Lawrence, "who is not born of a Georgian or Circassian mother; and even the king himself is commonly sprung, on the female side, from one or the other of these countries." Herein we see the beneficial effects of crossing temperaments.

The superior enterprise and native intelligence of the people of the United States is mainly attributable to the fact that our population has ever been heterogeneous, and made up of materials contributed by every nation on the globe. We have a mixture of all sorts French, English, German, Scotch, Irish, Russian, Turk, Chinese, and every other variety which the old world can furnish, together with contributions from South and Central America. These have been, and are, constantly amalgamating or crossing. America, consequently, is, as she ought to be, the most powerful and progressive nation in the whole world. And still her prospects of future greatness would be immeasurably enhanced, if intermarriage between relatives and like temperaments were prohibited by law. Put a stop to immigration, and allow consanguineous families and similar temperaments to intermarry, and national degeneracy would soon ensue.

Thus far, accidental crossing, arising from the presence and constant influx of foreigners, has given physical and mental vigor to our population; yet we have idiots, maniacs, cripples, consumptives, &c., who are, in a majority of instances, the production, directly or indirectly, of bad marriages. As a nation's greatness depends upon the character of her population, it is the duty of every government to bestow at least as much attention upon the improvement of her human stock, as agricultural societies expend upon the improvement of the breeds of their horses and cattle.

To have enterprising and intellectual men and women, we must have boys and girls who are well developed physically and mentally. To look for these without due regard to adaptation in marriage, is as foolish as to expect "the olive to grow on the craggy summit of Ben Nevis, or the pine apple to expand amid the glaciers of Grinder-

walde." Parents are in great degree responsible for the physical infirmities and mental imperfections of their children. They are particularly so, when the natural law against the intermarriage of relatives has been violated. Once put in operation, a discriminative system of granting marriage licenses, such as I have suggested, and the marrying of nieces, cousins, and other blood relatives, will be discontinued, except in cases where temperamental difference and freedom from inherited diseases render the union unprejudicial.

CHAPTER VIII.

Essays for Married People Only.

SEXUAL EXCESS.

Both health and happiness, in married life, are seriously curtailed by sexual excess, growing out of ignorance of the philosophy of sexual intercourse. No married man or woman should neglect to read Chapter II. of this Part, for a perusal of that cannot fail to impress upon the mind of the reader the fact that sexual excess, besides exhausting the nervous system, and thereby rendering its victims susceptible to disease, produces sexual satiety. In no way, probably, can the physiologist apply a more certain remedy to this evil than to convince married people that moderation in indulgence heightens the pleasure, and that those who give way to excess lose much of the sexual enjoyment afforded in married life. With this view, I shall treat this subject more with reference to its direct effects upon the pleasures than upon the health of the married.

Bearing on this point, I find some very truthful remarks in "Love and Parentage," by O. S. Fowler. "If," says the writer, "parents would diminish their frequency so as to enhance ecstasy, they would be incalculable gainers in the amount of pleasure experienced, besides doubling, perhaps quadrupling, all the endowments of their offspring. No mistake can be greater than the prevalent supposition that hymeneal pleasure is in proportion to frequency; whereas it is in the reverse ratio. Do we not enjoy a single meal, when really hungry, more than scores when not so? So here frequency begets satiety, and gluts the appetite and enjoyment. Suppose New Year came once a week, we should take less pleasure in fifty-two new years than we now do in one, because frequency would render it insipid; whereas now weeks and months are spent in most delightful preparation and anticipation of this one day, which is often an instrument of more and more exalted pleasure, than any entire month of the year. The applicability of this illustration to the case in hand, is too apparent to require specification, and the practical lesson here taught, should

nduce the married, merely as a means of securing the very pleasure sought, to partake less often, that it may be with a keener relish.

"Bear in mind that we write to PROMOTE sexual pleasure instead of to curtail it. We recommend abstinence in order to increase the sum total of enjoyment, and deprecate frequency, because destructive of the very pleasure sought. The epicurean philosophy is the true one. Self-denial forms no part of our creed. We go for SELF-*enjoyment* in the fullest sense of that term, and in its application to the subject in hand. We wish to show parents how they can the most effectually ENJOY this banquet, instead of diminishing one iota from hymeneal bliss as such. That exercise of this function is most concordant with nature which yields the most enjoyment, both in and of itself, and in its various and multifarious bearings on our other enjoyments. Thus qualified, neither our motives nor our philosophy can well be misunderstood; for we give the largest liberty compatible with the highest sexual enjoyment, to promote which is the one desire of both this section and this work. Call me not a hymeneal Stoic, but EPICURE; yet as gluttony precludes gustatory pleasure, and as a single meal, eaten with the keen relish conferred by appetite, gives more and more exalted pleasure than scores without it, so hymeneal postponement is the secret of hymeneal appetite and pleasure; while as the gourmand can never know exalted gustatory pleasure, so the cloyed advocates of connubial frequency necessarily deprive themselves of most of the pleasures they seek, and what few are left are embittered." Continues the same writer, sexual excess "breeds disgust for its paramour. We are compelled by a law of mind, to regard a frequent partner of sensuality as a kind of *animal tool*, a mere sexual *thing*, gross, low and sensual. This shows *why* the libertine, however intently he pursued his 'game,' before indulgence, always becomes indifferent after desire is sated, and finally casts her off. This is *always* the case because based in the law of mind that sensuality, in and of itself, degrades its joint partner in their own eyes, and in the eyes of each other breeds disgust of self and one another, deteriorates the moral tone, and demeans and animalizes the entire being! This abasement is *inherent* in excessive indulgence for its own sake; nor does marriage wipe away the polluting stain. Carnality is carnality, the world over, in wedlock as much as out of it, and *constitutionally* 'breeds contempt, disgust,' and hatred, ever between the married. This must *always* be the case where animal

indulgence is sought; the laws of nature knowing no difference between those *legally* married or unmarried. I speak of mere animal indulgence as such."

Many good things have been written by physiologists on this subject, but their arguments against sexual excess lack vitality, because neither themselves nor their readers correctly understand the true philosophy of sexual intercourse, and upon a proper understanding of this depends the reformation of married people.

As has been previously shown, sexual pleasure is produced by the action of electricity, in three forms, on the sensitive nerves permeating the sexual organs, viz: individual electricity, chemical electricity, and frictional electricity. The first is the natural product of every animal organism; the second, of the union of acid and alkali; the third, of friction, which draws the electricity from the nervous systems of both the male and female while in the act of coition. Now, to render individual electricity active in copulation, sufficient time must elapse between each indulgence to allow the male and female to regain the electrical conditions peculiar to each. Sexual pleasure depends, in great measure, on the *electrical difference* existing between the parties, and the longer intercourse is abstained from the more unlike will they become electrically, and consequently, greater will be the enjoyment if long intervals intervene between each copulation. That this philosophy is sustained by fact, every married couple know who have come together after long separations. The electrical conditions of two persons of the same temperament may become as much unlike by protracted separation, as those of two persons of opposite temperament who are continually together. Hence, married people of like temperament should be more abstemious than their neighbors, who are physically adapted, in order to derive the same amount of gratification.

To render chemical electricity active in copulation, sufficient time must elapse for the vagina to get clear of the neutralized fluid. As soda is insipid after the effervescent effect is over, so is the alkali of the vagina dead and inactive after having been neutralized by the acid of the male. Several days and sometimes weeks must elapse, after one indulgence, before the secretions of the vagina will become so purely alkaline as to be prepared for another animated combination with the acid of the male.

The action of frictional electricity is about all that is left to exercise the nerves of the generative organs of the slaves to sexual excess

The enjoyment of this is not so much dependent upon moderation, because the nervous systems of all living persons are constantly supplied, more or less, with vital electricity, to carry on the various functions of life, such as digestion, muscular motion, &c., and this can be diverted to the sexual organs by violent friction. But all this is at the expense of the vital system, and brings sexual excess down on a par with that horrible practice—masturbation. Many married people open their eyes with holy horror, when they learn of the secret practices of careless youth, apparently unconscious that sexual excess is no better. But such is the fact.

"Who can say," interrogates Dr. Dixon, "that these excesses are not often followed by those direful diseases, insanity and consumption? The records of our madhouses, and the melancholy deaths by consumption, of the newly-married, bear ample witness to the truth of such assertions. Are they not transmitted to posterity? Look at the frequent mental imbecility, and the pallid hue, and attenuated form of the children who are the earlier products of marriage, and see the parents vibrating between life and the grave, until the candid physician, or the terrors of death, teach them to abstain, and nature gathers up her shattered powers, and asserts anew her control of the organism. Should the lesson suffice and mature age be attained, again look at the offspring; if the first children survive, the last would not seem to be born of the same parents, so different are they in vigor and sprightliness: and in maturer life almost invariably more intellectual." We therefore see that the sexual happiness of married people, and the health of parent and child, depend upon moderation in the marriage bed.

THE PREVENTION OF CONCEPTION.

During an extensive practice of several years, I have found one of the most fruitful sources of disease to be the various modes resorted to by married people to prevent a too rapid increase of offspring. The country is flooded with quack nostrums, injurious and unreliable "recipes," &c., all of which have been produced, of course, because there is an actual demand for some reliable prevention; and it is a matter of not much doubt in my mind that the health of married females has been quite as much deteriorated by their use, as it would have been had they actually given birth to a child as often as once in fourteen months or two years. But the female has not alone

suffered through their use, for that which is injurious to one of the sexes, under such circumstances, is invariably detrimental to both.

Prevention pills, taken internally by the female, tend to weaken the muscular fibres of the womb, and, if successful as a prevention, in a very short time produce obdurate barrenness; then "female weaknesses" necessarily follow, when purulent and excoriating fluids are exuded from the internal membranes, and the male, at each copulation, becomes inoculated with the virus, by which the powers of his generative organs are debilitated or absolutely destroyed. Many will appreciate the truthfulness of this remark under the incentive of sad experience.

The use of caustic washes as injections, produce the same results, though more rapidly; and many a lady who is suffering under the most aggravated forms of leucorrhœa can trace its origin directly to their application.

The use of water, as an injection, has met the approval of some, but it is by no means reliable, and fails eighty cases in a hundred; besides, the frequent application of cold water to the vagina in a little while deadens the sensitiveness of the female sexual organs, from which arises a disinclination for sexual intercourse.

A more common mode of prevention is resorted to by the male, and is usually termed "withdrawing." This practice is more disastrous to health than all the rest, because its effects are developed so gradually that neither the male or female is really aware of its injurious tendency, until their systems are shattered to a frightful extent, and not even then, unless they are somewhat familiar with the teachings of physiology. To both sexes it is little better than self-pollution. In a natural and full intercourse, as has been before shown, *electricity*, individual, chemical, and frictional, is evolved, and it is the action of this wonderful agent on the delicate nerves centering in the sexual parts which produces the pleasurable sensations; and it is at the moment the discharge of the seminal fluids takes place that a quieting equilibrium is restored between the parties, by which the agitated nervous systems of both are recompensed for the excitement which they have undergone. In the practice of "withdrawing," electricity in all the three forms is brought into action; but this condition is excited without being allowed to regulate itself, or to restore to the nerves the *principal* which has been borrowed, or the *interest* which has accumulated; hence the injury, gradual and imperceptible, resulting from this common and

health destroying practice, to say nothing of the imperfect emission, on the part of the male, which causes a portion of the seminal fluids to remain in the urethra to excoriate the sensative membrane, and often to such a degree as to produce symptoms not entirely unlike gonorrhœa, nvolving both the bladder and prostate gland.

There are many other pernicious practices resorted to, but those I have briefly considered are the most common. That a harmless and sure prevention, in the hands of only medical men and the married, must conduce to the health and happiness of the human family, there can be no reasonable doubt. Such is the testimony of all medical writers. Dr. Hollick has made some very truthful remarks on this subject. He says—"It is well known that there are many severe diseases to which females are subject, that can never be removed while they conceive; but which, if uncured, are sure to become fatal, and probably also descend to their children. Some females also have deformed pelvises, and can never bring forth live children, while others are *certain to die* if the child remains in the womb till it is a certain size. Besides these cases, how many there are that remain in constant ill-health and suffering from continued child-bearing, without the possibility of relief or escape.

"It is not generally known that it is the regular custom in medical practice, when a female has a deformed pelvis, or is otherwise incapable of being delivered at the full term, to *produce abortion*. This, however, is the invariable custom! and it is done because it is thought better to sacrifice the fœtus only than to let both die, as they assuredly would if the gestation were allowed to proceed? Now, it may well be a question in such cases, whether it would not be better to teach how to prevent conception altogether. I am confident that much of the horrible practice of procuring abortion, now so prevalent among married people, is caused by the want of simple and reliable means of prevention.

"There are few persons, except medical men, who have any idea of the extent to which the revolting practice of abortion is now carried, nor of the awful consequences that frequently follow from it. Every female who undergoes any of the disgusting operations practiced for this purpose, does so *at the risk of her life*, and to the almost certain destruction of her health if she survives. Those that take drugs are also equally exposed to risk. Every female may be told with truth—and, indeed, every one ought to know—that *there are no safe means of abortion*. It is true that some few may undergo the ordeal in safety.

but none can depend upon doing so, and the chances are ten to one that death, or the evils referred to, will follow. A general knowledge of this fact would do much to prevent the practice, but it would not do away with it altogether, unless some *reliable* means of *prevention* were known, and in many cases it must become a choice between abortion and prevention.

"Some people will say that it is possible for persons to avoid having a family without using preventive means. But the deprivation required *will not* be undergone by the great mass, and cannot be undergone without the most immoral consequences. It is sheer absurdity to suppose that the promptings of nature can be totally unheeded; and illicit intercourse and vicious habits of self-indulgence would certainly follow a total deprivation of the marital right in most instances."

Whatever may be the views of the rigid moralists in regard to the employment of means for the prevention of conception, the *necessity* of such measures can be clearly shown and justified by every principle of humanity and virtue. Excessive child-bearing may be truthfully said to be the bane of general society. It is not only destructive of the vital powers of the female herself, but entails innumerable ills upon subsequent posterity, in bringing children into the world, like Shakespeare's Richard, "scarce half made up," and liable accordingly to every species of infirmity, inducing further physical and mental degeneracy upon generations destined to spring from enfeebled loins and lack of that peculiar zest of sexual commerce only incident to the electrical or nervous force concomitant of a sound physical and mental organization of the human being.

The excessive mortality among infants and children between one and five years of age, is chiefly traceable to inherent debility and a lack of that *vis medicatrix naturæ* so necessary to the healthful and vigorous unfoldment of the human organism. This excessive waste of human life is surely unnecessary, and can be readily prevented.

There should be a fixed period, to allow for natural gestation, lactation, etc. The period from the time of conception to the weaning of the child from the use of its mother's milk, should cover at least two years. Such a rule would prevent that terrible drain upon the vital juices of the woman, incident to excessive child-bearing, which so often destroys the flower of her days, robs her of her beauty and strength,

and drags her down to an untimely grave, not only herself, but her innocent and helpless offspring.

With these startling facts and arguments staring me in the face, I shall not hesitate to lay before my readers in Part III. of this book, such information as I am in possession of, for the prevention of conception. There are *reliable* and *harmless* means which *never fail* in effecting the object, and it is but right and proper that they should be placed in the hands of the married. Those who accord with me in these views, and desire to avail themselves of the means science and art have thus far afforded, are referred to page 378.

SEXUAL INDIFFERENCE.

This, on the part of the husband or wife is a frequent cause of matrimonial infelicity and infidelity; so much so, as to demand the attention of the faithful physiologist. The necessity for reciprocity in the marital relation is treated at length, in Chapter III. of Part II., and to it I would refer the reader.

Sexual indifference is of two kinds, viz.: anthropophobia and sexual apathy. (See page 182.) The former is characterized by the most intense aversion to the sexual connection. The individual not only experiences no amative emotion, but feels the utmost disgust when required to yield to the conjugal embrace. Many who experience this feeling, imagine that they are more chaste and refined than those who are capable of amative excitement, but chastity or extraordinary refinement is never the cause. It results either from disease, or an unhappy matrimonial alliance. Females are more subject to it than males, for the reason that their organs of procreation are more often diseased than those of the latter, and, further, because women are more apt to marry for wealth and homes than men. How can it be expected that a young and beautiful woman will heartily and affectionately welcome to her bed a decrepid old man, whom she has married merely because she wishes to gratify her pride by the exhibition of the gewgaws of wealth? Or, if discrepancy in age does not exist, how soon the fires of amative passion die out and repugnance takes their place, when the married couple are neither mentally nor physically adapted!

But when adaptation in marriage has been duly considered and observed, disease, as before remarked, may cause anthropophobia. Excessive mental labor by either sex, may so divert the electrical or nervous

stimulus from the organ of amativeness that repugnance may take the place of desire. Diseases of the brain may produce the same result and sometimes induce impotency. Ulcerous, tumorous, cancerous, and inflammatory affections of the sexual parts in either sex, are apt to cause a disrelish or incapacity for coition.

Sexual apathy is more common than anthropophobia. The same causes which produce the latter may produce the former. The most common cause is impotency, which may exist in either sex, as already shown in the essay on "Impotency" (see page 192). When the erectile tissue and erectile muscles are paralyzed, inability to perform the act exists on the part of the husband, while a wife so afflicted, although capable of cohabiting mechanically, experiences no pleasure, and is only glad to be released from her husband's embrace. One of the most prevailing causes of indisposition on the part of the female, is leucorrhœa, the presence of which disease corrupts the alkaline secretions of the vagina, and so coats the mucous lining as to render the parts insensible to electrical influences. It also prevents the evolutions of frictional electricity by excessive lubrication of the clitoris.

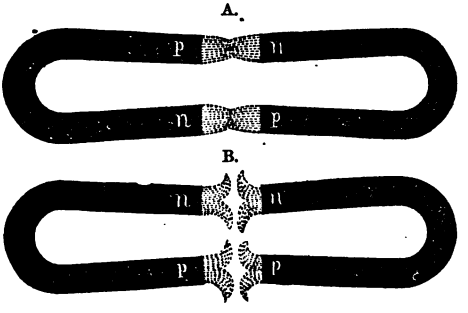
It not unfrequently happens that a want of proper development of the clitoris causes indisposition. This organ is so very small in some females as to almost render the production of amative excitement by friction impossible. For a few weeks or months after marriage, or until the individual electricities of the husband and wife become in a measure equalized, the bride enjoys her new relation as well, or nearly as well, as any one; but after the magnetisms of the two, by repeated contact, become somewhat similar, the wife loses her excitability, and only after she or her husband has been absent from the other for a few weeks or months to entirely regain the electrical conditions peculiar to each, does she enjoy the sexual embrace. Electrical applications to the young, or those under thirty or thirty-five, will, in most cases, develop and enlarge the clitoris, and can hardly fail in any case to render it more sensitive.

Secret habits in girlhood in some instances produce indisposition in adult age. Debility and impotency of the procreative organs are apt to succeed such physical violations, for they are no less destructive to those delicate parts in the female than to those of the male.

Want of physical adaptation is a frequent cause. Similar temperaments and habits produce similar electrical conditions. Between such persons there is a kind of electrical repulsion. There may be such a congeniality in tastes and sentiments as to give rise to the greatest

friendship and esteem one for the other, but neither possesses the power to impart to the other a magnetic thrill by touch or contact. Allow me to introduce the horse-shoe magnet to illustrate clearly this matter. In figure 85, A may be used to represent a husband and wife, well mated physically. It will be observed that when the positive and negative (marked p and n), are brought together, there is perfect blending of the electrical or magnetic currents. One electrifies the other so that there is between animal bodies thus congenial an interchange of animal magnetism very pleasing to the senses. B may represent inadaptation. When husband and wife are of similar temperaments the effect is the same as if two positives (marked p p), are brought together, and two negatives (marked n n), brought in contact. In this illustration it is seen that the dots, representing the magnetic currents, instead of blending and interchanging as in A, are repelled by each other. Now, so long as the electrical or magnetic forces of husband and wife are thus similar in quantity and quality, it is impossible for agreeable sensations to be engendered or experienced by physical contact, and hence it is not to be expected that any great degree of sexual pleasure can take place between them in the copulative act.

Fig. 85.



ADAPTATION AND INADAPTATION ILLUSTRATED.

If any pleasure at all is experienced between parties sustaining these electrical relations to each other, it is obtained entirely from frictional electricity, as in masturbation, and the effects are injurious to both.

If mental adaptation exists between the married pair, so that they really feel ardently attached to each other, this difficulty may be partially remedied for a few months or years, and in some cases permanently, by electrical and mechanical means, accompanied with due regard to diet, habits, etc. But when there is neither mental nor physical adaptation, the indifference is not only irremediable, but anthropophobia may succeed, and continue until the marriage tie is dissolved by divorce or death, and a new alliance formed. Cases do occur among ladies in which, after years of sexual indifference with

an uncongenial partner, a second alliance, formed under the most favorable auspices, yields no amative gratification. The reason for this is, that cohabitation without love or passion destroys after a time the sensibility of the parts. If you want to destroy digestion, crowd your stomach with food when you do not need it, or with things you do not relish; if you want to destroy the sensitiveness of the palate, eat and drink habitually those things which are perfectly obnoxious to the taste; if you wish to overcome the sensitiveness of the uterine organs, and render them not only insensible to pleasurable excitement, but, eventually, incapable of reproduction, marry a man who is distasteful and disagreeable to you; one who cannot call out the first spontaneous amative emotion, or kindle the first desire, while you continue sexual intercourse year after year. Of course he will insist on being gratified, and habitual cohabitation with such a man can only end in the production of an abnormal condition of those delicate organs.

When anthropophobia and sexual apathy exist on the part of the wife, cohabitation is injurious to the husband. Masturbation is not much worse than copulation under these circumstances. The wife fails to electrify him, and the pleasure he derives results mainly from friction, the same as in sexual abuse. In such instances seminal weakness or other nervous derangements are developed, such as afflict the habitual masturbator, and the physician is called upon to give his opinion and afford relief. I have had many such cases, and in no one of them did the sufferer seem to imagine the cause of his difficulties until I informed him.

Nothing can be more ridiculous than for a lady to arrogate to herself the possession of more chastity and more virtue than her neighbor, because she feels no sexual desire. Nor can a husband present himself in a more laughable light to an experienced physiologist, than when he supposes that such apathy on the part of the wife is the result of extreme modesty and good breeding. The fact is, the sexual appetite is just as natural as the appetite for food, and disease causes the loss of the one just as much as it does loss of the other. Fortunately such exquisite people, as alluded to, are not numerous, or rather, do not so often present themselves to the skillful physician, as those who have more sensible ideas. It is no uncommon circumstance in my practice for ladies of education and refinement, affected with anthropophobia or sexual apathy, to present their cases with the expressed conviction or seeming realization that their indifference is

the result of disease. I admire the frankness and good sense of a wife like this, and I have been happily instrumental in remedying or curing the difficulty in a majority of such cases. In fact, sexual indifference in both sexes is usually partially or wholly curable except when both mental and physical adaptation have been disregarded in marriage. It is necessary first to ascertain the *cause* or *causes*, and this I can do whether the case be presented at my office, or by letter in answer to the questions beginning on page 238.

PHILOSOPHY OF CHILD-MARKING.

There are, perhaps, no functional phenomena which have engrossed the attention of medical writers to such a degree, as those pertaining to the formation of the physical and mental characteristics of the embryotic human being. Example after example, of a curious character, is given to surprise the wondering public, and yet no one seems to have ventured upon a philosophical solution or explanation of the cause or causes. Nearly every medical writer tells his reader what singular instances of child-marking have occurred under his observation, and nearly every investigating reader finds them in any number within the range of his own observation.

I will here present, in as concise a manner as possible, the facts which are revealed to the eye and ear of those who keep these organs of vision and hearing open. I will also present, after each fact, a few examples illustrative thereof, and that any reader of these, who is unacquainted with me, or unfamiliar with the subject, may not suspect that I have drawn on my imagination for them, I will only adduce such as have been related by other well-known writers. I could produce from the testimony of various authors, an unlimited number of examples in corroboration of each of my following five affirmations; but two or three will answer as well as a dozen:

First. As a rule, the child exhibits, in its physical and mental organization, more or less of the peculiarities of both parents.

Second. The offspring often resemble only one of the parents.

Examples.—All my readers have living examples illustrative of the two preceding affirmations all around them, and, inasmuch as no one can be found foolish enough to deny them, it is unnecessary to consume time and space with their relation.

Third. The offspring frequently seems to possess none of the physical and mental characteristics of either parent. It sometimes looks like

some good minister, doctor, or neighbor, when wife, minister, doctor, and neighbor are all above reproach, at least, have done nothing to give rise to scandal or suspicion. Or, it may resemble some great man or woman whose physical appearance is preserved in portraits or pictures, and whose mental characteristics are described in biography. Or it may bear the impress of some singular dream.

EXAMPLES.—Prof. Britton tells us of a lady who lived in Fairfield Co., Conn., and in universal esteem for her exemplary life and unblemished character, but who gave birth to a child who seemed to almost perfectly resemble the minister presiding over the church of which she was a member. The child has become a tall and graceful youth, and yet resembles the parson. The same writer also relates that a gentleman of his acquaintance, with very dark hair, beard and eyes, wedded to a lady with brown hair, and a complexion no lighter than his own, had nine children, and, with a single exception, they all have dark straight hair and hazel eyes. Indeed, for several generations, not a single member of either family has had curly hair. The exceptional case is a fair youth with large, blue, expressive eyes, and golden locks having a natural tendency to curl.

Dr. Davis relates two interesting instances as follows: "A woman of considerable physical courage, mounted a horse, rode side by side with her soldier-husband, and witnessed the drilling of the troops for battle. The exciting music and scene together, inspired her with a deep thirst to behold a war and a conquest. This event transpired a few months before the birth of her child, whose name was—Napoleon."

"During the important period immediately preceding the birth of Dante, his young mother saw a startling vision of grandeur and great depth of significance. She beheld a populated globe of symmetrical proportions rise gradually out of the sea and float mid-heavens. It was decorated with every conceivable element of natural and artificial beauty. Upon a high and grand mountain, which melted away in the distant horizon and sloped gracefully into lands and lakes that spread out to the left, stood a man with brilliant countenance, whom she knew to be her son. Pointing with his upraised hand, he bade her look down to the right of the mountain. She beheld a precipice of abrupt ascent like the walls of an immeasurable gulf with depth unknown. Whereupon she thought she fainted with excess of fright. But her son was as serene as a morning star; and, looking again, she saw no evil. After this beautiful and thrilling vision, Dante's mother had only in

view the greatness of her unborn child—whose genius as a scholar and poet, as a creator of a world of fancies, is known throughout all the lands of civilization."

FOURTH. A widow, remarried, not unfrequently bears children by a second husband resembling the first; maidens who have cohabited with some one of the other sex, either by consent or restraint, have borne in subsequent marriage, and in several successive confinements, children resembling the person with whom they first had intercourse.

EXAMPLES.—Rev. Charles McCombie, states that a lady neighbor of his, who was twice married, had five children by her first husband, and three by her second. Of these three, a daughter bears unmistakable resemblance to its mother's first husband. The likeness, he remarks, was more discernible because there was such a marked difference in the features and general appearance of both husbands.

A Scotch physician communicated to Dr. Hollick a fact which came under his observation as follows: "A young female was forcibly violated by a person whom she did not know, and under such circumstances that she could not see him. It was known, however, by her friends, who he was, and, to avoid exposure, the matter was kept a secret, although, unfortunately, she became pregnant in consequence. The child strongly resembled its guilty parent, and the two children she had by marriage afterward, also resembled him, although they were by her husband, the guilty young man having left the country.

"Dr. Dice says that he has certainly known one instance, if not more, in which a mulatto woman bore children to a white man, and that the same woman had to a mulatto man, children who bore much resemblance to the white man, both in complexion and features.

"Prof. Simpson of Edinburgh, gives an instance of a young woman of that city, born of white parents, whose mother some time previous to her marriage, had a child by a mulatto man-servant, and this young lady exhibits distinct traces of the negro. Her hair, particularly, resembles that of the African."

FIFTH. A pregnant lady may become frightened or annoyed by some disagreeable circumstance, or by some deformed or hideous object, and bring forth her child mentally affected thereby, or bearing a physical resemblance to the loathsome object.

EXAMPLES.—Dr. Pancoast relates the following: "A woman, absent from home, became alarmed by seeing a large fire in the direction of her own house, and bore a child with a distinct mark of a flame upon its forehead.

"A woman who had longed for a lobster, brought forth a child resembling one of those animals.

"A woman gave birth to a child covered with hair and having the claws of a bear. This was attributed to her beholding the images and pictures of bears hung up in the palace of the Ursini family, to which she belonged."

Dr. Dixon in a number of his Scalpel, relates the following: "Mr. H., of the northern part of the state of New York, married some forty years since. Pecuniary circumstances rendered offspring undesirable. Within a year, however, the wife thought herself with child; on expressing this belief to her husband, she was, at the moment, quite shocked at the dissatisfaction with which he received it. Taking his hat, he was absent from the house nearly an hour. He was distressed on his return, to find his wife in tears. He assured her he was rejoiced to learn the probable realization of her announcement; and he was now satisfied with the condition of his pecuniary affairs. The wife dried her tears, and expressed her conviction that her offspring would suffer from her agitation. Her fears gradually increased as gestation advanced. A healthy and well-formed boy was born. After some months it manifested an extreme unwillingness to approach the father. This gradually increased, until its dissatisfaction was manifested by loud and continued screaming when brought near him. As age advanced, the most persevering efforts were made to overcome this repugnance, and the attempt was abandoned in despair. This state continued, and, at the time of our receiving the information, the son, then an active and rising member of the bar, had never been able to speak a word to his father, though the most painful efforts were made."

Probably every person of mature age and much observation has seen as remarkable examples as those which are herein given. The uppermost question in the minds of every one cognizant of these phenomena is—how do they happen? I think I can explain to the entire satisfaction of every reader, but before doing so, I must give my theory of the process which the male and female germs pass through, for the formation of the fetus.

Some ancient, and a few modern physiological writers have ventured the singular hypothesis that the spermatozoa of the male are perfectly formed miniature men and women, and that the egg of the female is only food for the one which takes lodgment therein! This is simply ridiculous when it is considered that the spermatozoa have no organs for

performing the functions of mastication and digestion. Early habits maintain a powerful influence on all animals, and if the little fellow once commenced eating, he would keep it up throughout the period of gestation, and everybody who is old enough to comprehend any thing about the matter, knows that the fetus derives its nourishment—not from eating, but from what is furnished by the mother through the umbilical or navel-cord. Not till after birth, does it exercise its masticating and digestive functions, and then it keeps them up with a commendable perseverance until death! Nor would the little fellow give up using mouth and stomach during gestation if it once commenced by swallowing down the ovum. Eating is a bad habit to break one's self of, as everybody knows who is used to good dinners! Dr. Darwin's theory was more sensible than this, and that was laughable enough. Although a distinguished physiological writer, he held that mankind, like a frog, sprung from a tadpole! It is true the spermatozoa of the male semen, under a microscope, bear a greater resemblance to tadpoles than they do to miniature men and women; but I think, I can present something more plausible than the supposition that God's noblest work is merely a developed polliwog. All I can do is to theorize, for there is thus far, apparently no way of arriving at positive knowledge in regard to the matter. We may, however, familiarize our minds with nature's laws, and by doing so, it seems to me that a pretty correct theory may be arrived at. I shall, at least, offer mine, and leave it to the good sense of the reader, if it is not well sustained by all that science up to the present time has revealed.

Fig. 86.

THE SEMEN of the male largely magnified, to show the spermatozoa therein.

Before entering upon this branch of my subject, the reader will more readily see the plausibility of my views by looking at the illustrations, Figs. 87, 88, wherein *a* represents a magnified spermatozoon, *b* the spinal cord with its nervous sprouts, and capped with the back of the brain, and *c* the ovum or egg of the female. Particular attention is called to the resemblance existing between the spermatozoon and the spinal cord. And then the reader is referred to Fig. 88, showing the brain, spinal cord and its nervous branches in the developed state, and let it be remembered that it is universally conceded

that the spine is the great nervous trunk. The light spot exhibited in the ovum in Fig. 87, is regarded by anatomists as the germ.

Now, my theory is that the spermatozoon of the male is composed of the germ of the cerebellum and spinal cord; that the germ of the female egg is composed of the germs of the organs which are contained in what is commonly called the trunk or body, and the arms and limbs issuing therefrom, wrapped in a thin membrane; that the spermatozoon enters this membrane and takes a proper position, from which it throws out its nervous sprouts around and through the organic germs supplied in the ovum; that the nervous ramifications thus expanded from the spinal cord impart nourishment and vitality to the organs contained in the female germ in their new condition, receiving their supply from the magnetism of the procreative organs of the mother; that as soon as the vascular system, or the system of veins and arteries becomes sufficiently developed, the placenta attaches itself to the walls of the womb and draws its supply of blood therefrom; that the advent of this fluid-flesh, fluid-muscle, and fluid-bone (for of such constituents is the blood composed), is seized upon for building up the framework of the osseous structure and the various layers of muscle, etc., which are carried atom by atom to their proper places, just as the particles of gold and silver are carried and deposited by galvanic currents in the electro-plater's process. Fig. 89, representing an embryo of forty-five days attached by the umbilical or navel cord to the placenta, presents an appearance quite corroborative of my theory.

Fig. 87.

SPERMATOZOON, SPINAL CORD, AND OVUM.

Fig. 88.

ANTERIOR VIEW OF BRAIN, AND SPINAL CORD WITH ITS NERVOUS BRANCHES.

People seldom realize when they look upon a watch-case that has been galvanized, that the gold or silver with which it is so beautifully

coated was carried particle by particle, and deposited thereon by currents of galvanism. Galvanic or voltaic currents of electricity passed through minerals in solution, will often build up the most wonderful images of trees, coral, etc., on metal plates suspended therein. Then why may not the animal electrical currents build up the human structure in the womb under electrical laws established by the Divine Artificer?

Can the germs of these nervous sprouts from the spinal cord be detected in the spermatozoon by the microscope? No, they have not yet been. Neither have the roots, stalks, or heads of wheat been detected in the little kernels of grain the farmer plants. But that they nevertheless possess them is evidenced by the fact that they throw out roots, tall stalks, and in process of time, what is called the head, in which is arranged, in the most mathematical order, a great number of kernels of the grain. It has been found, too, that the application of electro-magnetism to the plant hastens its growth, showing that this is undoubtedly the great motive power nature supplies to the roots of plants to carry up particle by particle the atoms of nutrition they suck from the ground.

Fig. 89.

EMBRYO OF FORTY-FIVE DAYS.

Dissections of human bodies at various stages of development, from utero-life to advanced age, have revealed the following facts: that the nervous system is developed first; that the spinal cord undergoes great changes. The extremity of the spinal column in all human beings projects a little, such projection being called the Os Coccyx. In infancy this projection is a mere cartilage, but as the child advances in age it grows more osseous or bony until it becomes bone. While thus changing, it forms into separate bones like the vertebræ, and not until adult age do these unite in one solid bone. Now, it seems to me that these various changes which the spinal cord and spinal column pass through, go to support my theory. The spermatozoon having, in embryo, the cerebellum and spinal column encased in a membrane, begins by permeating the portions of the human system furnished in embryo by the female egg with its sprouts or branches, and in due course of time the membrane encasing it becomes cartilage, and finally bone, and not until adult age does it cease in its changes. During

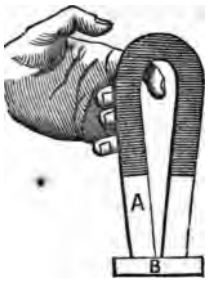
these changes in the substance of the case or column the spinal cord recedes until it only reaches the first or second lumbar vertebræ. This last statement is a conceded fact.

I might suggest many facts substantiating my hypothesis, but I have already occupied more space than I can well spare for this branch of the subject. I have so presented it that I think the reflective mind will admit the rationality and plausibility of the theory, and I will therefore pass to the solution of the various phenomena indicated by the facts or examples presented in the first part of this essay. This I will do in the order I observed in presenting them.

FIRST: Why do offspring generally possess the characteristics of both parents? This can hardly result from any character imparted by the minute embryo contributed by each. They are both too small to exercise any very controlling influence, especially when it is considered how much the peculiarities of the child depend upon surrounding influences as well before as after birth. It is a trite proverb, that as a "twig is bent the tree inclines," and certainly if education and social surroundings can so change the character of the child after its advent into the world, how much easier the little germinal speck in the mother's womb may be governed by physical influences. Thousands of the little seminal animalculæ called spermatozoa could be contained in the shell of a single mustard seed, and the egg or ovum of the female does not weigh more than a two-thousandth part of a grain. The prospective constitutional health of the offspring is most undoubtedly influenced by the purity and healthfulness of the spermatozoon and ovum, but further than this, these germs probably exercise very little control over the mental or physical organization of the fetus. The investigating man will find that in the highest type of animal, as well as in the highest order of vegetable life, the seed itself seldom imparts the character of its progenitor to the offspring or product. I presume it will not be questioned by man, in his vanity, that the human being is the highest type of animal life, and I believe it is conceded that fruit-bearing plants and trees constitute the highest order of vegetable life. Therefore, if reasoning by analogy amounts to any thing, my hypothesis must be correct, for all horticulturists know how rarely an apple, peach, plum, pear or cherry-tree can be raised from the seed and possess the qualities of the parent-tree. It is also useless to plant the seeds of strawberries, raspberries, blackberries, etc., with the expectation that the same quality of fruit can be reproduced by

this process. It can rarely, if ever be done. And I am convinced that the further the matter is investigated, the more apparent it will appear that the germinal specks which give birth to the human embryo, have little or nothing to do with imparting character to the child. Then what is it that causes the child to resemble its parents? I reply, the influence of the magnetism of the husband upon the uterus of the wife, and the influence of her magnetism in conjunction with his, upon the fetus in process of formation. We find that some of the metals may be permanently magnetized. Probably the majority of my readers have seen iron so magnetized that it would attract any small metallic bodies like tacks, nails, etc., and hold them as if they were glued to it. In the annexed illustration A represents a horseshoe-magnet which has been so magnetized, that it will pick up a piece of iron of considerable size, as represented by B, attracting it with so much force, that quite a pull is required to separate the two; figure 91 represents a hammer which has been magnetized to such a degree that it will pick up nails without the aid of fingers. Its attractive power is sufficient to hold the nail by the head while the first blow is given to drive it in the wood. This magnet and the hammer impart, while they are in contact with metallic substances, their magnetic properties to them, so that they are entirely under their magnetic influence. Now, I hold that the influence of the male sexual organs over the uterus, etc., of the female are in a measure analogous. The womb becomes magnetized, and, in many cases, permanently, by the male in copulation, and the individual magnetism so imparted to the womb, causes the organ to exercise an important influence upon the mental and physical character of the growing embryo which it contains, for seven or nine months. Do you ask how the magnetism is imparted? I answer that it may be imparted by the contact or friction of the male organ with the womb. Rub your knife-blade with a piece of magnetized iron and for some time, that in turn, has the power of the magnet, and will attract particles of metal. The length of time the blade will re-

Fig. 90.



HORSESHOE-MAGNET.
Holding by attraction a bar of iron. A, the magnet, B, the iron bar.

Fig. 91.

A MAGNETIC HAMMER.
a represents the hammer attracting to it the tack *b*.

tain this power depends upon the strength of the magnet and the length of time it has been applied; and the duration of the magnetism of the womb depends upon the magnetic power of the husband and the length of time it has been under his control.

Let it not be imagined that I consider the magnetism which governs the attraction of metals identical with that which the husband imparts to the uterus, or that the latter, strongly magnetized, would have any attractive power over metals. All kingdoms, animal, vegetable and mineral, have magnetism peculiar to each, and I have only alluded to the magnetism peculiar to metals to illustrate my theory. I have already shown in this work that individual electricity or magnetism is possessed by every one, and that it exerts a remarkable influence over the sexual and social relations. Even the great ancient philosopher Socrates gives the history of what he experienced in the society of a lady friend in the following language: "Leaning my shoulder on her shoulder, and my head to hers, as we were reading together in a book, I felt, it is a fact, a sudden sting in my shoulder like the bite of a fly, which I still felt five or six days afterward, and a continual itching crept into my heart." Certainly the wise philosopher was too sensible to imagine this, and his amusing relation of his love experience only shows that he was susceptible to the magnetic power of his female associate. If it be admitted, as I think the pages of this work prove, in those parts in which the philosophy of sexual intercourse is discussed, that men and women are magnetized by each other, then, it is self-evident that individual magnetism may be communicated to any susceptible part of the organism. In fact this truth is verified by the effects of mesmeric operations on the external members of the body.

SECOND: Why do offspring often resemble but one of the parents? After having read my explanation of fact first, it is easy to infer that some persons are less susceptible to magnetic influences than others. Thus the uterus of one lady may never become fully magnetized by the husband. She will produce children resembling herself, for the fetus in its various stages of growth is almost exclusively under the control of her own magnetism. Then, again, the womb of another, more susceptible, will be so excessively charged with the magnetism or electricity of the husband that the children are perfect *fac-similes* of the father. But why do we sometimes find in a family one, or more, resembling the father, and the rest having the mental and physical charac-

teristics of the mother? Simply because many persons are subject to periodical exaltations and depressions of their magnetic powers; hence, when the exaltation of the husband's magnetism is coincident with the depression of that of his wife, then the uterus and the embryotic product are under the husband's control. When the magnetism of the wife is in the ascendant, then the development of the fetus is under her magnetic control.

THIRD: Why do children frequently possess none of the physical or mental characteristics of their parents? Because the magnetism of the mind of the mother, under the influence of some mental impression or impressions she receives, controls the development of the unborn child. If it be something she has read or dreamed, or a picture, or an object she has seen, and her mind is dwelling upon it, then the mental magnetism seems to overcome all merely local influences of her husband or her own, and the whole physical structure of the embryo, including the brain, is built up, particle on particle, and each atom moved to its place by the magnetic forces supplied by the mother's mind.

The magnetism of the mind is always superior to any local magnetism of the individual, and while the former may not interfere with the latter when there is nothing to disturb the normal equilibrium of the nervous system, any great mental emotion may change at once this harmonious status, and the mind's magnetism will assert its control, entirely supplanting the local electricity and magnetic operations going on in the uterus of a pregnant female whose admiration, excited imagination, ungratified desire, or fear is excited. And here, an illustration is not wanting. The conduct of the atmospheric electricity toward telegraph wires which conduct galvanic forces from one region of the country to another may be instanced. The former is superior in quantity and power to the currents generated in the office of the telegraphic operator, and yet every thing goes smoothly on if the elements are undisturbed; but let a thunder-storm arise, and the lightnings of heaven not only assert their supremacy over the wires by the driving off or swallowing up of the operator's currents, but in some cases knock the operator over and melt his instruments.

If the offspring resemble some living man to whom the wife was much attached, then that person had, through the medium of her brain, magnetic control of her uterus just as much as if he had had physical contact therewith, while both parties may have been perfectly in-

nocent of sexual connection. Indeed, if the pregnant wife has carnal desire for any gentleman, which she strives in vain to resist, the influence of her mind upon the fetus, is greater than could result from actual sexual intercourse, because the workings of the magnetism of the mind upon the uterus always exert a more controlling influence, when once set in motion, than merely those of the magnetism of the procreative organs. As is proverbially the fact, pregnant ladies are very apt to mark their children with any thing for which they have a longing or an ungratified desire.

When a child seems to possess none of the physical or mental peculiarities of any one, so that the parents exclaim: "Who in the world does that child take after?" then the mother has been either mentally or physically magnetized by many different persons, or mentally impressed by objects, subjects, or biographies during gestation.

FOURTH: Why does a widow in some cases have children in subsequent marriage resembling the first husband? Because her uterus is so permanently magnetized by the first that it requires time for her second husband to neutralize or overcome the magnetism of the first. With a remarkable instinct concerning the philosophy of this phenomenon, the semi-barbarians of Kamtchatka require a widow to sleep with a stranger before contracting a second marriage, which act, they say, purifies them and renders them eligible for subsequent espousement. They seem to imagine that this intermediate connection will neutralize the influence exerted by the first husband, although I am confident they are decidedly mistaken. As a rule, having its exceptions as already given, the male who first lives and cohabits with the female, governs, to a greater or less degree, the character of the offspring *ever after*. As a general rule I do not believe a wife is capable of having an illegitimate child, unless those which are influenced in embryotic life by mental magnetic impressions on the uterus, as described in answer to question third, can be so regarded. Nor am I alone in this opinion. Michelet, the philosopher and historian, in words of advice to husbands who have detected their wives in infidelity, remarks as follows:

"You cannot abandon her. For how dangerous it will be for her, when the lover, who receives her, experiences the disgust of finding your reflection everywhere in her person, transformed through you? In discovering in her your voice, your words, your gestures, and traces even still more profound!

"She belongs to you to that degree, that even should her lover impregnate her, it will probably be your child—one marked with your features, that she will give him. He will have the punishment of seeing that he can have nothing real or profound from her, and that, in the capital point, in the generating union, he is unable to render her faithless."

My position on this subject is sustained by the testimony of those who have observed the effects of the first coition between animals and their subsequent offspring. It is authoritatively stated, "a mare belonging to Sir George Ously was covered by a zebra, and gave birth to a striped hybrid. The year following the same mare was covered by a thorough-bred horse, and the next succeeding year by another horse. But the foals thus produced were striped, and partook of the character of the zebra. And it is stated by Haller, and also by Becker, that when a mare has had a *mule* by an ass, afterward a foal by a horse, the foal exhibits traces of the ass. Cases are recorded of mares covered in every instance by horses, but by different horses, on different occasions—where the offspring partook of the character of the horse by which impregnation was first effected. It has often been observed that a well-bred bitch, if she had been impregnated by a mongrel dog, will not, although lined subsequently by a pure dog, bear thorough-bred puppies in the next two or three litters. The like occurrence has been noticed in the sow." Breeders of cattle are familiar with analogous facts as occurring in cows. Says M'Gillivray—"Among cattle and horses they are of every day occurrence." Now a man is just as much superior to the lower animals in his individual magnetism as he is in every other attribute, and we might consequently expect a more permanent magnetism of the human female by the one first cohabiting with her than can possibly take place under the same circumstances to the female of the brute creation. Then, again, if simply the first connection produces such a permanent effect, what may we not reasonably look for when a husband lives in such intimate relations with her, as he usually does, for years instead of a few months?

FIFTH: Why are the effects of annoyances, frights, or sudden emotions of mind of the mother apt to be daguerreotyped upon the body or mind of the unborn child?

In accounting for these phenomena I must again illustrate my theory with the electro-magnetic telegraph, for with this instrument almost every one is familiar. Continuous currents of electricity along

the telegraph wire are sometimes suddenly interfered with by the approach of a cloud charged with atmospheric electricity, and when it comes in contact with the wire, it being in a higher degree positive, its electricity darts both ways on the latter, effecting a break, and driving in opposite directions the telegraphic current, which was a moment before uninterrupted between one distant office and another. As the cloud recedes from the wire, the telegraphic current resumes its path as if nothing had happened, but the strips of paper on which the registers impressed the messages, give evident marks of the shock, and instances have occurred in which the telegraphic instruments were twisted in all manner of shapes. Now, frights may make their impression on the growing fetus in obedience to the same electrical law. The individual electricity of the whole body may be compared to atmospheric electricity, and those electrical evolutions going on in the uterine organs to the electricity employed by the telegraphic operator. The fright, annoyance, or whatever it may be, produces a sudden accumulation in the brain of the electrical forces of the nervous system, and as sudden propulsion of them to all parts of the system, including the uterus, where the local currents are interfered with by the intrusion of the more powerful and instantaneous currents from the brain, bearing a daguerreotype of the object or subject which causes the fright or annoyance. All who have ever experienced fright know the sensation; first, a sudden pressure in the brain, as if the blood had all rushed thither, and in another instant a peculiar sensation in every inch of the body, extending to the very ends of the fingers and toes. Sometimes the fright deals a death-blow to the fetus, through a ponderous wave of mental electricity precipitated on the uterus, just as the telegraphic operator is stunned or rendered senseless by the atmospheric shock; but if no miscarriage occurs, and the local currents resume their action, the fetus is almost sure to show some marks of the sudden intrusion, either on its mind or body, or both, just as the strips of paper passing through the telegraphic register receive some peculiar impressions or marks under the circumstances named. Extreme cases of malformation may be compared to those remarkable instances when the telegraphic apparatus is twisted and distorted by the intrusion of the atmospheric currents.

We may more reasonably look for the daguerreotyping of objects on the embryo human being in the womb, by electrical disturbances under the influence of the mind (the eye of the mother serving as a camera), than for such effects to take place on the full-grown man by

disturbances of the atmospheric element, and yet the following facts gleaned from newspapers show that the latter are possible:

"A countrywoman has recently arrived in Paris from the department of Seine et Marne, who should be presented to the Academy of Sciences. This woman was a short time since watching a cow in an open field, when a violent storm arose. She took refuge under a tree, which, at the instant, was struck by lightning; the cow was killed, and she was felled to the ground senseless, where she was soon found, the storm having ceased with the flash that felled her. Upon removing her clothing the exact image of the cow killed by her side was found distinctly impressed upon her bosom."

"A correspondent of the New York Independent says this curious phenomenon is not without a precedent. Dr. Franklin mentions the case of a man who was standing in the door of a house, in a thunderstorm, and who was looking at a tree directly before him, when it was struck by lightning. On the man's breast was left a perfect daguerreotype of the tree."

"In 1841, a magistrate and a miller's boy were struck by lightning near a poplar tree in one of the provinces of France, and upon the breasts of each were found spots exactly resembling the leaves of the poplar."

I cannot, nor is it necessary to follow out this interesting subject with the numerous suggestions, illustrations, and explanations which crowd upon my mind at this moment. I am confident I have given the key to unlock the mystery of "child-marking," as this class of phenomena is generally called, and the ingenious mind can, with it, account for every case, however peculiar, which the sparsely populated village and the crowded metropolis present.

Let no one having children bearing no resemblance to themselves, be pained by any inferences they may draw from what I have offered. It is often well that children do not take after their parents in their physical formation or mental organization. If they exhibit talent, goodness, or physical beauty superior to the parents, then well may the latter congratulate themselves, even if such superiority has obliterated every mark of family resemblance. In reality none of our children belong to us. God has established certain laws for the perpetuation of the race, and our little darlings and pets, with their roguish blue and flashing black eyes, whose presence lends cheer to our households, and gayety to the hearts of doting grandma's and grandpa's, all belong to one common Father—God, who owns them just as much as the manufac-

turer owns the fabrics turned out by his mills. An ingenious mechanic may invent a machine which only needs to be set in motion each day, to turn out some articles of acknowledged utility. No one supposes the machine owns these goods. We all are God's agents for perpetuating our kind, and he has ordained certain laws to prevent the race from becoming extinct. But our children are not ours; they are His. We may feel flattered when we see them partake so much of our flesh, blood, and magnetism as to reflect our images; but even this is the result of our vanity, and whether they do or not, we are bound by every principle of humanity and religion to love, properly protect, and correctly train, the helpless human miniatures, until they become old enough to take care of themselves. The most important work we have to perform while they are in the mother's womb, is to, as far as possible, protect them from moral, mental, and physical malformation. To this end, the mind of the mother should dwell on subjects of an improving and elevating character. It should be kept tranquil and happy; free from sudden and disagreeable emotions of any kind; but all this is impossible if she be unhappily married, or if she daily meets, in her out-of-door exercises, deformed and loathsome people. Accidents will occasionally happen to shock the nerves of pregnant ladies, but deformed people should be kept out of public thoroughfares, and ill-assorted marriages should be interdicted by law.

FOOD FOR PREGNANT WOMEN.

Experiment and observation have shown that the pains and perils of child-bed may be greatly diminished, if pregnant ladies will only pay strict regard to their diet, and eat such food as possesses the least amount of calcareous matter. What I mean by calcareous matter is that which, when taken into the system, goes to produce bone. There can be no mistake in the hypothesis that the fœtus in the womb is nourished by the same food which is eaten by the mother, and if this contains a large quantity of calcareous matter, the frame of the unborn child is too rapidly developed, in consequence of which its delivery is attended with greater danger and more pain. It is not necessary to enter into an argument to show why a child with a large frame should give the mother more pain in its delivery than one with a small frame — the fact is self-evident. It matters little how fat the little fellow becomes, because his flesh is yielding and readily conforms to the shape of the passage; but a large and inflexible frame reverses the fact, and makes the passage conform to it.

Many ladies, during gestation, mistakenly resort to the very diet which produces the most mischief. All kinds of bread, puddings, cakes, etc., made of Indian-meal, usually so wholesome for people both in and out of health, are often used, to the exclusion of almost all other food, by pregnant women, under the erroneous supposition that they are best suited to their condition. Now, analysis shows that twelve thousand five hundred pounds of Indian corn contains one hundred and eighty lbs. of calcareous matter, while the same quantity of rice contains only ten lbs! The flesh of young animals contains only one-twenty-fourth as much calcareous matter as Indian corn, and all kinds of fruits contain only one-three hundred and sixtieth part as much. It is therefore plain that all preparations of Indian corn are an unsuitable diet for ladies who are pregnant, although no one will question their wholesomeness for nearly all persons under other circumstances.

Common salt, which performs a very important part in the animal organism, and also all condiments, contain nearly as large a percentage of calcareous matter as Indian corn; and although food is insipid without at least a moderate use of these luxuries, it would be well for all ladies who are about to become mothers to abstain as much as possible from their use until after confinement.

Potatoes are much better than wheat bread; barley bread better than either; and preparations of arrow-root, sago and tapioca better than any of these, while all kinds of fruits, like peaches, prunes, apricots, tamarinds, nectarines, cherries, plums, apples, pears, pine-apples, oranges, lemons, figs, raisins, grapes, blackberries, strawberries, gooseberries, raspberries, cranberries, mulberries, elderberries, bilberries, currants, melons, etc., are the most harmless things which can be eaten during the period of pregnancy.

All kinds of animal food, and particularly eggs and milk, are admissable; also, such vegetable food as lettuce, celery, onions, beets, turnips, carrots, radishes, mushrooms, parsley, parsneps, and peas. But fruits lead all these in their freedom from calcareous matter, and are consequently best adapted to the condition of ladies in a state of pregnancy. Potatoes, preparations of corn, wheat, oat and rye flour, and beans, should be carefully avoided.

I have directed many ladies in the selection of proper food during gestation, according to the foregoing rules, and, in all, the results have met my most sanguine expectations. Those who had previously suffered the most agonizing labor pains, found a happy diminution

in their length and severity; others, who, from their compact build, anticipated painful and protracted labor, in many instances, escaped with less than average suffering; while many have, in substance, said to me—"Doctor, it's nothing but fun to have children by pursuing your directions while enciente."

CARD TO MARRIED PEOPLE.

In concluding this Chapter of Essays, I feel constrained to say that comparatively few married people attain the conjugal happiness which their relation is capable of imparting. Even those who are not altogether congenially mated, might, if moderation and proper remedial and conciliatory means were employed, pass the shoals and rocks of life's ruffled stream with comparative freedom from perplexity. When there is physical adaptation, sexual excess often detracts from the pleasures of the sexual embrace and the esteem which the married pair naturally feels for each other, while sexual indifference often results therefrom, embittering the cup from which they have sipped too excessively. Those who are not well mated physically are apt to fret in the uncongenial harness, and instead of adopting means to remedy in a measure the sexual indifference arising therefrom to one or both, allow mutual mental repugnance to set in to aggravate an estrangement which, in the outset, might be overcome. Again, barrenness, as well as excess of offspring, is the bane of married life. While no family wants a house full of the interesting responsibilities with pretty eyes and blooming countenances, every "well regulated family" is said to require one or more, and an absence entire of them not unfrequently creates a feeling of dissatisfaction. Now, in all of these matrimonial annoyances, the old systems of medicine effect no relief, and those who are troubled with any of them settle into the erroneous impression that there is no relief for them. To such I would say, consult me freely either in person or by letter. My post-office address is given in page 374. No one need hold back from fear that I will betray confidence, — my tongue is ever silent in reference to the consultations of my patients. I am daily consulted at my office or by letter on subjects of the most delicate nature, and all such secrets are locked up or forgotten, while the advice I give in such cases, I am happy to find, is almost invariably successful.

CHAPTER IX.

Essays for Young and Old, bearing on Happiness in Marriage

EARLY MARRIAGE.

MUCH has been written pro and con. regarding the expediency of early marriage. Physiologists, I believe, are about equally divided in their opinions on this question. The opposers of early marriage contend that the offspring of young parents are not as strong, physically and mentally, as those of parents of more mature age, and give the names of Coleridge, Goldsmith, Wirt, Richelieu, Oberlin, Ignatius Loyola, and other distinguished poets, statesmen and philosophers, together with the fact that they were the youngest children of their parents, as illustrative examples of the correctness of their theory.

While it is useless to deny that a majority of the world's great men were not the first born, it is rather jumping at a conclusion to attribute the cause entirely to the maturity of their parents. Many great men are the eldest children of their progenitors, and I am firmly convinced that many more would be, except for the sexual excesses to which nearly all newly married people are given. In fact, it is almost surprising that there are any first or second children who acquire distinction, considering the mental and physical enervation which nearly all newly married people bring upon themselves by the constant amative excitement under which they are pleased to keep themselves, while the romance and novelty of their new relation remain. It must, therefore, necessarily require several years of moderation for their systems to regain their wonted energies, and, as a sequence, we may reasonably look for the best specimens of the genus homo among the youngest offspring of parents. If this reasoning is correct, and I appeal to the candid judgment of all experienced physiological observers if it is not, the chief and only important argument against early marriage is futile, while the arguments in favor of early marriage are numerous and momentous.

When God created man, He implanted in him two passions stronger than all others, the ultimate object of one being to sustain life, and

that of the other to reproduce it. One passion calls for food, the other for sexuality. Starvation of either often dethrones reason and renders men reckless and unmanageable. A man who is denied alimentary food scruples not to break locks and destroy life to obtain means for the gratification of his appetite. A man who is denied sexual food violates virtue and social regulations, or himself, for the gratification of his carnal appetite. Now, as to the precise time when these appetites should be gratified, it would seem that nature had distinctly indicated, and that is, *when they manifest themselves.* Immediately after birth the child exhibits an appetite for food, and the humane mother does not deny it nourishment, nor would she listen to the advice of any philosopher who directed her to deprive her offspring of the nourishment of her breast till it arrived at a certain age, adjudged proper by his school of savans. Appetite for food is thus early developed because the existence and growth of the infant depend on immediate and repeated nourishment; but sexual appetite remains undeveloped for many years because its immediate manifestation is not necessary for reproduction. Now the question arises, *does nature develop the latter before the individual is qualified for the propagation of perfect specimens of his kind?* All who have observed the perfection of nature in all her works will unhesitatingly answer—No! Then we are to conclude that the age of puberty is that which nature appointed for marriage, are we? Yes, I reply, if we make a few years of allowance for the prematurity induced by the improprieties of parents and the improper training and bad habits of children. The organ of amativeness is frequently too largely developed in the embryonic offspring by the excessive indulgence of the parents in sexual pleasures during the period of gestation. After the birth of the child, he is usually feasted on meats, tea and coffee and other stimulating food and drink, fit only for persons of adult age, by which sexual precocity is produced. In consequence of these habits, for which parents are responsible, nature is in a measure perverted, and the sexual appetite is created a few years earlier than nature designed. Hence, even in this climate, girls usually commence menstruating at the age of thirteen or fourteen, and boys are often victims to habits of masturbation at twelve or thirteen. Nature's directions have been, in a measure, destroyed, as were the tables of the commandments in the days of Moses; but they may be restored in a few generations, if mankind will but return to the observance of the laws of life and health.

Notwithstanding, however, nature is to a certain extent anticipated in the development of the sexual appetite, the fact that sexual desires are manifested at an early period of manhood and womanhood is a strong argument in favor of early marriage, in view of which men and women should marry as soon after puberty as they are qualified to assume the cares and responsibilities which the relation entails; and, by this remark I do not mean until they get rich, or in a position to live fashionably, but as soon as they can honorably support themselves and the children which may be born to them.

In England, the 26th year is the mean age at which men marry, and the 25th, that at which women marry. In this country, the 24th year is the mean age at which men marry, and the 18th, that at which women marry. Now, I am not aware that the English surpass the Yankees in mental power, and if they do in physical strength, it is nothing more than we might expect when we contrast the habits of the English women with those of this country. The former are noted for their love of pedestrian exercise, and the latter for their devotion to badly ventilated kitchens or parlors, and sedentary habits generally. That early marriage does not produce physical weakness, we have only to look at the Chinese, who regard a *bachelor* of *twenty* as an object of contempt! Still the "Celestials" have a fair reputation for physical strength, and deformity is not common among them.

The tendency of early marriage, if formed on true principles, with due regard to the teachings of physiology and phrenology, is wholesome and elevating. "Every school boy knows," says a newspaper writer, "that a kite would not fly unless it had a string tying it down. It is just so in life. The man who is tied down by half a dozen blooming responsibilities and their mother, will make a higher and stronger flight than the bachelor, who, having nothing to keep him steady, is always floundering in the mud. If you want to rise in the world tie yourself to somebody."

Southey says that "a man may be cheerful and contented in celibacy, but I do not think he can ever be happy; it is an unnatural state, and the best feelings of his nature are never called into action." Now, if it is an "unnatural state" for a man at thirty-five, it must be equally so at twenty-five, and even for a young man who has but just attained the age of puberty.

"Early marriages, wherever they can be contracted with any ordinary regard to prudence," says Dr. Wardlaw, of Scotland, in his lectures on Magdalenism, "are among the best preventives of prostitution; and whatever contributes to hinder the formation of these, may be regarded as standing chargeable with their share of its encouragement, as ranking among the causes of Magdalenism. I deny not that prudence is a virtue, and the question of marriage is a proper sphere for its exercise. But there cannot be a doubt that high notions, which, by the refinement and extravagance of our times, have been introduced, of the *style* in which young men entering on life must set up their domestic establishment, have, in many instances, laid restraints on the early cultivation of virtuous love, and prevented the happy union of hearts in youthful wedlock. I cannot look upon this as at all an improvement on the homely habits of our fathers. Many are the young men who are thus tempted to remain single by their felt inability to *start* in what is regarded a somewhat *creditable* style. Would to God I had the ear of all the youth in our city, and in our country, that I might tell them of the sweets of early virtuous union; and that I might earnestly and affectionately urge them to consult their own best interests, and to set an example pregnant with the most beneficial results to the community, by bidding defiance to the tyranny of fashion; by returning to the good old way; by finding a partner who will marry from love; and who will be willing and more than willing to begin upon little, and by the blessing of Providence, to rise gradually to more. *That* was the way in the olden time; and, although no croaker for the superiority of all that pertained to ancestry, *this*, most assuredly, is a point in which I should say of the former days, 'they were better than these.' I would say to the rising youth—the hopes of coming generations—'Moderate your views; defy custom; marry; fear God; be virtuous; and be happy.' Could my voice and my counsel prevail, what a salutary check would be given to the prevalence of the vice which is our present subject."

Celibacy is almost incompatible with virtue, and masturbation and prostitution cannot fail to result from deferring marriage much beyond the age of puberty. A life of celibacy is rarely a life of virtue, and I make the remark without ignoring the fact that Newton, Galileo, Michael Angelo, Locke, Hume, Pope, Bacon, Voltaire, Cowper, and many other distinguished men, have lived and died old bachelors. The inborn sexual passion is generally too strong in man to be safely

denied gratification, and if not gratified in virtuous marriage, it seeks gratification in the dens of harlotry, or the secret chamber of the masturbator. Yet, those who possess not this passion, "are of all men most miserable." "The difference between a thoroughly selfish old bachelor, and a man that is married and fit to be married to a woman he loves," says Dixon, "is about the same as that of an American yacht and a Chinese junk: one will sail in the very eye of the wind, the other only when it is dead astern."

"Your true bachelor," says the same writer, "is stupid and awkward, and requires an immense berth; he is given to seat himself in the lady's chair and to toast his shins before the middle of the fire; very solicitous is he about his creature comforts, and a perfect stoic to woman's charms. He takes no hints; never mind how coolly he is treated, nor what symptoms of the opera or an evening party to which he has not been invited he may perceive, so much the more will he not go. Nay, the very appearance of the lady's gallant, will not move him; he can inflict himself and his twaddle on some unfortunate member of the family; she may make the best of him for her martyrdom is certain. If there be a stupid and good-natured brother who smokes fine cigars, and he will tolerate the insult to the sister, the sitting room will be rendered peculiarly acceptable at breakfast to those who have delicate olfactories. The mental peculiarities of this creature, are all characterized by dogmatism and selfishness, and no one at all familiar with the animal can fail at once to detect him.

"The marriage of a young girl to such an individual, can be productive of nothing but unhappiness; it is equally opposed to experience and natural instinct. The soul, as well as the body, shrinks into arid selfishness when it does not early bow to woman's charms. The lightning of the eye and the music of the voice are quenched by the vice of celibacy, and the miserable creature dreams not that the forfeit of his devotion to his personal comforts, is nothing less than the capacity of their enjoyment."

BUSINESS AVOCATIONS SHOULD BE OPEN TO FEMALES

One prolific cause of unhappy marriages, is the limited sphere allowed females in which to exercise their ingenuity and talents for self-maintenance. In most parts of the civilized world it is not considered strictly respectable for a lady to pursue any active avocation sufficient in itself to give her comfortable support. Daughters are

expected to lead idle lives under the parental roof until they can catch husbands; and, if their parents are not in circumstances of affluence, marriage is their only refuge from pecuniary want in advanced age. The result is that women daily marry homes with little regard to the feelings they entertain for their proprietors.

Now, this is all wrong, and should be remedied by opening for their pursuit all departments of business which they are physically qualified to conduct, and by giving them, at public schools, such *practical* educations as will enable them to compete successfully with their neighbors in broadcloth. I know that there exists no civil law against ladies becoming merchants, lawyers, doctors, etc., but society has established a code which is about as effective as if it came by authority of state, particularly as the education imparted to females in the family and in school is such as to practically enforce obedience thereto.

"Our girls are educated," says a writer, "not to develop their faculties as human beings; not to give the freest scope to their talents and aid them in the pursuit of happiness; not to qualify them for the struggle of an earnest life, for honorable independence by industry, art or literature. No, they are educated, ostensibly and at best, to make good wives and mothers, frequently that they may be successful in catching husbands. Whatever knowledge a husband may think desirable, whatever accomplishments may aid them to entice and entrap some man of a suitable position to marry them; whatever may fit them to shine in those resorts of fashion and gaiety which are our matrimonial markets, in these things our daughters receive instruction."

To show the necessity of ladies throwing off their dependence on the coarser sex, I cannot do better than quote Mrs. Jamieson. She says: "In these days, when society is becoming every day more artificial and more complex, and marriage, as the gentlemen assure us, more and more expensive, hazardous, and inexpedient, women must find means to fill up the void in existence. Men, our natural protectors, our law-givers, our masters, throw us upon our own resources; the qualities which they pretend to admire in us—the overflowing, the clinging affections of a warm heart—the household devotion—the submissive wish to please, that feels 'every vanity in fondness lost'—the tender, shrinking sensitiveness which Adam thought so charming in his Eve—to cultivate these, to make them, by artificial means, the staple of the womanly character, is it not to

cultivate a taste for sunshine and roses, in those we send to spend their lives in the arctic zone? We have gone away from nature, and we must, if we can, substitute another nature.

"Art, literature, and science remain to us. Religion—which formerly opened the doors of nunneries and convents to forlorn women—now mingling her beautiful and soothing influence with resources which the prejudices have yet left open to us, only in the assiduous employment of such faculties as we are permitted to exercise can we find health, and peace, and compensation for the wasted or repulsed impulses and energies more proper to our sex—more natural, perhaps more pleasing to God; but trusting in his mercy, and using the means he has given, we must do the best we can for ourselves and for our sisterhood. The prejudices which would have shut us out from nobler consolation and occupations, have ceased, in great part, and will soon be remembered only as the rude, coarse barbarism of a by-gone age. Let us, then, have no more caricatures of methodistical, card-playing, and acrimonious old maids. Let us have no more of scandal, parrots, cats or lap-dogs—or worse!—these never-failing subjects of derision with the vulgar and the frivolous, but the source of a thousand compassionate and melancholy feelings in those who can reflect! In the name of humanity and womanhood, let us have no more of them. Coleridge, who has said and written the most beautiful, the most tender, the most reverential things of woman—who understands better than any man, any poet, what I call the metaphysics of love—Coleridge, as you will remember, has asserted that the perfection of a woman's character is to be characterless. 'Every man,' said he, 'would like to have an Ophelia or a Desdemona for his wife.' No doubt; the sentiment is truly a masculine one; and what was their fate? What would now be the fate of such unresisting and confiding angels? Is this the age of Arcadia? Do we live among Paladins and Sir Charles Grandisons? and are our weakness, and our innocence, and our ignorance, safeguards—or snares? Do we, indeed, find our account in being 'fine by defect, and beautifully weak?' No, no; women need, in these times, character beyond anything else; the qualities which will enable them to endure and resist evil; the self-governed, the cultivated, active mind, to protect and to maintain ourselves. How many wretched women marry for maintenance! How many wretched women sell themselves to dishonor, for bread! and there is small difference, if any, in the infamy and the misery! How many

unmarried women live in heart-wearing dependence; if poor, in solitary penury—loveless, joyless, unendeared; if rich, in aimless pitiless trifling! How many, strange to say, marry for the independence they dare not otherwise claim! But, the snare-paths open to us, the less fear that we should go astray.

"Surely it is dangerous, it is wicked, in these days, to follow the old saw, to bring up women to be 'happy wives and mothers;' that is to say, to let all her accomplishments, her sentiments, her views of life, take one direction; as if for women there existed only one destiny, one hope, one blessing, one object, one passion in existence. Some people say it ought to be so, but we know it is not so; we know that hundreds, that thousands of women are not happy wives and mothers—are never either wives or mothers at all. The cultivation of the moral strength and the active energies of a woman's mind, together with the intellectual faculties and tastes, will not make a woman a less good, less happy wife and mother, and will enable her to find content and independence when denied love and happiness."

It is gratifying to see ladies of talent attempting to rouse in their sex proper appreciation and appropriation of the latent practical talents of women. There is not the shadow of a reason that woman should be pecuniarily *dependent* upon man. Although in few respects like him, she is in all respects *naturally* his equal. And notwithstanding she has been educated for centuries past to not only feel, but acknowledge, mental superiority on the part of the "lords of creation," there have been, from time to time, bursting forth from her sex, intellectual lights like Madams De Stael, De Genlis, Martineau and Wright, to remind her of her slumbering genius.

I have not patience to bring forward facts and arguments, numerous though they are, to prove that woman is mentally and physically capable of maintaining herself. It seems to me like a contemptible insult to her palpable ability, to directly or indirectly raise the question. "In the reign of Ann of Austria," says a writer, "French women took the lead of political factions; the French princess had a regiment, and ladies of the court took rank as marshals in the army. Women preached in public, supported controversies, published and defended theses, harangued in Latin, and wrote Greek and Hebrew. Ladies took degrees in the universities, became doctors of law, and filled professorships. About this time works were written in several languages, *to prove that women were superior to men.*" In ancient Egypt, women engaged in trade and commerce, and in the early ages

of Greece they were allowed the right of suffrage. What a stigma, then, is it, upon the character of this boasted age of enlightenment, that thousands of women are driven to the infamous trade of prostitution for a bare livelihood! that many more, who would rather die victims to starvation, than earn their bread in harlotry, struggle year in and year out with the unrecompensing needle for a mere subsistence!

Much has already been written concerning the poor pay females receive in the limited branches of industry which social despotism allows them to pursue, and I shall not here dwell on the subject. I will only advise, nay, *urge* ladies to *crowd themselves* into all business pursuits for which they are physically qualified, such as retailing dry goods, jewelry, books, stationery, newspapers, household furniture, crockery ware, and groceries, and manufacturing and selling cotton and woollen goods, fine shoes, confectionary; and all professions and trades for which they have both physical and mental adaptedness, in order that they may become less dependent upon their "legal protectors," and be enabled to live lives of "single blessedness" rather than unite themselves to disagreeable masses of masculine blood and bones, for the mere sake of escaping from poverty and starvation. Remember that, in the eyes of God, respectable prostitution, such as marrying for homes and wealth, is no better than that practiced by abandoned women.

LADIES SHOULD BE ALLOWED TO "POP THE QUESTION."

What! solicit gentlemen to marry them? Certainly!—why not? Have not ladies preferences which they have a *natural* right to indicate as well as gentlemen? Is there any good reason why ladies should not have the privilege to choose, as well as refuse? Strange, how firmly rooted false notions become by education! Custom is a powerful law-maker, but not always a just one. He is particularly despotic in his conduct to ladies, and winks at many improprieties committed by gentlemen. He only reproves gentlemen when they get drunk, commit fornication and adultery, gamble, and do many other disgusting and criminal things; but the ladies he condemns and heaps with reproaches, whenever they are found guilty of any such offences. He opens to man a wide field for industry and the accumulation of wealth; to woman he gives a "seven-by-nine" room, in which she may labor in penury until she can obtain absolution by marriage. And then, to crown all, if she wishes to marry the old

tyrant commands her to wait and accept or refuse such offers as may be made, while to man he gives the exclusive prerogative of choice! True, woman has choice between her suitors, if she have more than one, but it is often synonymous with a "choice between two evils," while man may select from an hundred or a thousand. The ladies, in justice to themselves and their female posterity, should rebel against this despotism as did our revolutionary fathers against British tyranny in colonial times. Emperors and Kings do not monopolize despotism; Custom, though not himself a despot, is often despotic, and the ladies are the most patient and uncomplaining victims of his tyranny.

REBELS OF THE YEAR 1900 AGAINST OLD KING CUSTOM.

'How many women," says Dr. Davis, "have wished themselves men! Because, simply, that a ridiculous custom deprives women of social freedom. * * What wonder that some strong women-natures have burst the bonds, and steeled their hearts against the shafts of ridicule and derision! How low must be the social state which curtails the social liberties of woman! She has no liberties to *first* manifest her preference to some kindred spirit of the opposite gender. No, indeed! If a woman should visit a man first, and inform him of her love towards him, the whole community would at once conclude that such an one 'is no better than she should be.'"

Robert Southey, the poet, who would perhaps have laughed at the proposition of giving ladies the right to ask the hand of gentlemen in marriage, once said that "the *risks* of marriage are far greater on the *woman's side;*" "*women,*" he added, "*have so little the power*

of choice, that it is not, perhaps, fair to say they are less likely to choose well than we are." He further said—"I know of nothing which a good and sensible man is so certain to find, if he looks for it, as a good wife." I am equally certain that there is nothing which a good and sensible woman would so certainly find, *if she were allowed to look for it*, as a good husband. I deny that "their opinions concerning men are less accurate than men's opinions of their sex," as has been asserted. Neither sex deserve great credit for judging of human character, especially before marriage; but ladies, as a rule, are gifted with keener perception than gentlemen. The female sex would not get cheated oftener in marriage than the male sex, if the former enjoyed the same prerogative to choose that the latter arrogates to itself. "Manage as they may," says Nichols, "girls must wait for offers, and be the choice generally of a very narrow circle; and there is always a great temptation to accept the first, for fear of never having another." While this fact must universally be admitted, there is not a single good reason which can be urged against giving to ladies the right to manifest their preferences; but many may be adduced in favor of allowing them the valuable privilege.

It frequently happens that an aristocratic lady's true counterpart is among the ranks of the humble, and while he would not dare to approach her with a proposition of marriage, she *must not*, no matter how strong her affection for him, because custom forbids such a breach (?) of propriety. Many instances of this kind have come to my knowledge. A man in circumstances of affluence feels no delicacy in proposing to a lady in humble life; but if their circumstances are reversed, he fears his aspirations may be treated with scorn if he essays to offer her his hand in marriage. He thinks himself the recipient of great favor if she treats him with politeness and attention, and dares not think her conduct towards him is actuated by a desire that he should propose marriage. So bold a step on his part might forfeit even her friendship, and he chooses rather to remain sure in the possession of this latter than to encounter self-mortification and her displeasure, possibly, by soliciting her love. She perceives his diffidence, and wishes she might, for one moment, avail herself of his prerogative. But she hesitates. She, too, may mistake his sentiments; and, if so, and she should propose, what would the neighbors say; how people would laugh! Months roll on, and she, failing to make him understand her real sentiments, bestows her hand

on some worthless fop who has more money than brains, and who has had the bravery to offer himself because he flourishes in the same circle of society that she does. She accepts because she may not have a better offer, and perhaps because he has a sister she loves, even if she does not love him; and therefore she considers the family connection a happy one. This is no fancy picture. Every observer knows that instances of this kind are of frequent occurrence.

Diffidence often prevents gentlemen from proposing when their "sweethearts" occupy the same social position with themselves, and ladies, under such circumstances, would often "help them out," if they felt that they had a right to. L. N. Fowler relates an interesting example of this kind. "A very worthy, honest, diffident man, of the city of New York, paid his addresses to a young lady of equal worth and virtue, and the acquaintance became so intimate that he spent most of his leisure hours with her, always waited on her to and from church, &c., and continued so to do until *fifteen years had elapsed*: by this time the patience of the young woman became exhausted, and she resolved on bringing matters to a crisis. So she informed her lover, on his next visit, that she was about to leave the city. 'Are you?' replied he, with surprise. '*When* are you going?' 'To-morrow.' '*Where* are you going?' 'I don't know.' 'What shall I do? How long do you intend to be gone?' 'I don't know what you will do, neither do I know how long I shall be gone, said she; 'and now if you want me, say so, and take me; for now is your last opportunity.' He took the hint, and arrangements being made, they were soon married. After he had tasted the sweets of married life, said he—'Wife, why did you not say so before; for we might have been married fifteen years ago, as well as now, if you had merely said the word. I was ready to marry, and resolved to make the proposal again and again; but each time my heart would rise in my throat, so that I could not speak." Now, according to social etiquette, this lady was guilty of gross impropriety when she said to her bashful lover, "If you want me, say so, and take me." She would no doubt have said the same thing many years previous, had not custom forbade it; and she would most undoubtedly have married some *one she loved less* before the expiration of the long term of courtship, had another offered!

It belongs to ladies to work a reform in this matter. They must "declare their independence," and sustain each other in assuming a prerogative which rightly belongs to them. If a group of ladies are

informed, by an amazed biped in broadcloth, that Miss Somebody actually asked Mr. Somebodyelse to marry her, they must not laugh and join with him in ridiculing the heroic girl, but unite with one accord in praising her for her courage, and *lash with sarcasm* the masculine gossiper who has heralded the report to them. It is all wrong that the gentlemen have a world full of fair ones to select from, while ladies can only choose between two, three, or half a dozen stupid admirers, who may offer themselves. There is no weighty reason that it should be so, and the female sex is recreant to its own rights and happiness, if it does not assume the right to choose and propose.

CARD TO THE UNMARRIED.

The author of this work is often applied to personally or by letter for advice, by both young ladies and young gentlemen desiring to marry or contemplating marriage. One thinks he or she has some physical malformation, injury or infirmity which would render such a step unadvisable. Another fears the law of mental and physical adaptation will be disregarded, followed with conjugal unhappiness, if a certain pending courtship should result in marriage, or an actual engagement be fulfilled, and daguerreotypes or photographs of both parties, with descriptions of persons and characters, are presented for my decision and advice. Other matters of similar import are frequently laid before me in personal consultations or by letter. As these matters require time, and often considerable consideration, and do not belong to the ordinary labors of a physician, a fee of $2 will be charged for all such advice. Advice of this character will, at all times, be cheerfully given, if these terms are complied with, and all such consultations will be treated with entire *confidence*.

THE AUTHOR'S ADDRESS.

DR. E. B. FOOTE

May be consulted daily (except Sundays), between the hours of 1 *and* 7 *P. M., at his Office and Residence,*

NO. 1130 BROADWAY, NEW YORK CITY,

BETWEEN 25TH AND 26TH STREETS

(A few doors above the Fifth Avenue Hotel and nearly opposite the St. James.)

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A general convergence at this point of public conveyances renders the location convenient for people residing in or out of the city. The Broadway and Forty-Second Street Stages, and the Broadway and Seventh Avenue Cars pass the door. The Fifth Avenue Stages, the Broadway and Seventh Avenue Cars and the *green* Cars from the Grand, Houston, and Forty-Second Street Ferries pass the door. The Fifth Avenue Stages pass within a few yards of it. The Wall Street and Madison Avenue Omnibuses approach within two blocks of it. The Twenty-Third Street Stages, from the west side, turn down Broadway but two blocks below. The Sixth Avenue Cars are distant but one block on the west side, and it is but a few moments' walk from the Fourth Avenue Cars and the Depots of the New Haven Railroad and the Harlem Railroad on the east side. The upper Depot of the Hudson River Railroad is on Thirty-First Street, and those coming by the Cars on that road should leave them there. These explicit directions are given for the benefit of those residing in or out of the city who wish to consult the author in person.

No fee will be expected in any case for the first interview.

Invalids preferring to consult by letter are referred to page 238, where a list of questions will be found.

Letters containing no fee must have a postage stamp enclosed to prepay reply.

PART III.

THINGS USEFUL, AND QUOTATIONS TESTIMONIAL.

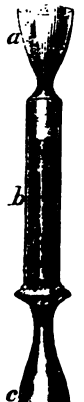
CHAPTER I.

Mechanical and Electrical Remedies, etc.

WHEN the hand of science and art in its industry excavates from the mines of thought and ingenuity ideas and things which, brought to the knowledge of the public, will bless and benefit mankind, it becomes the duty of an author while proclaiming the former to announce the latter. I therefore append in this chapter advertisements of a few useful medical inventions, which may be safely intrusted to inexperienced hands, and recommended no less to the non-professional than the professional reader, as harmless and efficient for the purposes for which they are advised.

THE EYE-SHARPENER.

Fig. 93.



EYE-SHARPENER.

The annexed illustration exhibits the character and object of this instrument. I have explained in an essay headed Presbyopia or Long-sight, on page 221, how it is that the sight becomes defective as the person advances in life, and it is unnecessary to reiterate those remarks in this place. It is simply necessary here to remind the reader that the flattening of the eye-ball causes the necessity for the wearing of spectacles by those who in their younger days could see well enough without them, and that consequently any thing which is calculated to give sharpness or convexity to the cornea of the eye, will restore the perfectness of the sight and enable the wearer of glasses to dispense with them. In the illustration, *a* represents a conical cup, which is so placed over the closed eye in using it, that the ball of the eye is slightly pressed on its sides; *b* is an air-chamber connected by an orifice through the neck with the conical cup, and *c* is an air-tight piston which may be partially withdrawn to increase the pressure of the eye-ball within the cup. No pain or discomfort is produced by its use, nor can it in any way injure that most perfect natural optical instrument which enables us to see the beautiful things God has strewn in our pathway, and the hideous objects and miseries ignorance, superstition and selfishness have thrust into the world. Indeed, its use seems to add healthfulness to the organ, and some who have employed it declare that they have cured inflammation in the eye by its application. I will not yet recommend it *for* that affection, however, for while I *know* its virtues for the restoration of the sight, I am not fully satisfied that it will in all cases cure inflamed eyes. If it be valuable for the latter purpose, its curative effects must result from the same cause which those of the lace stocking do in the treatment of varicose veins of the limb, *i. e.*, pressure on distended veins. I may say here, that the veins of the cornea of the eye and of the surface of the sclerotic or white of the eye are so small in health that the red particles of blood are not admitted

Except for this wise provision of nature, objects would appear dotted and blurred. Albeit, in inflammatory affections of the organ, the veins become distended, and the admission of the red particles gives the red and fiery appearance to it. Now, it is not only possible but quite probable that the gentle pressure the eye experiences in the use of the eye-sharpener, compresses the distended veins sufficiently to expel these red particles. If so, we can see why it has effected cures in cases of this kind. I can, at least, assure those who have been compelled to adopt spectacles in order to distinctly see objects near them, and who are also laboring under acute or chronic inflammation of the eyes, they need not fear that any injurious effects will proceed from the use of the instrument because of the presence of inflammation.

It is not my intention to consume space with the presentation of certificates commending the virtues of the Eye-sharpener, but I beg leave to introduce one from a highly respectable source, as it cannot fail to have weight with professional men, who use their eyes as constantly as the laboring man uses his muscles. It is as follows:

"TO ALL WHOM IT MAY CONCERN.—I Daniel Parish, of the city of New York, certify that my vision had become so far impaired by age or bad habits in using and manipulating them, that I could neither read nor write, nor transact any business that required the agency of the eyes without spectacles. So great was the inconvenience, that I was glad to have the opportunity of purchasing and testing upon my eyes, the eye-sharpener manufactured by Dr. Foote, and I am rejoiced to be able to say that after the application of it upon my eyes for a few minutes each day, for a time, according to directions, my sight was restored, and I dispensed entirely with the use of glasses which I always regarded as a *necessary* nuisance. And I do further certify that I had been, previous to the use of this instrument, occasionally and severly afflicted with inflammation in my eyes, from which I was and am entirely relieved by the use of the aforesaid instrument.

"I cannot lose this opportunity in recommending your instrument, to speak of your extraordinary skill in the treatment of rheumatism. For the benefit of those who are afflicted, as well as yourself, I must add that my life had been rendered miserable and burdensome for years by this torturing disease till I became your patient in 1855, since which time I, have been free from the terrible visitor.

DANIEL PARISH,
Attorney at Law, No. 229 Broadway, N. Y. (late of Fort Lee).

Professional men, however, are not the only ones who will gladly avail themselves of this instrument for the restoration of sight. The man in business who is annoyed by the necessity of adjusting glasses on his nose to sign a check or change a bank-note, and ladies who have preserved to advanced age every beauty of feature and faculty of mind and body, except perfectness of vision, will be glad to throw away spectacles and once more look through eyes that have the convexity of youth.

To guard the public against imposition, I will state that all agents authorized to sell these instruments, will have a written certificate from me, bearing my signature. Great care has been taken to have the cup possess exactly the right tapering form to produce the proper degree of convexity. It is not an instrument which can be made as it should be by one who has not studied the science of optics. I make these remarks because impostors have already taken advantage of the popularity of an invaluable invention, to manufacture and sell imperfect instruments. I have recently ascertained that several hundreds have been sold to the unsuspecting public. Persons who will not scruple to invade the right guaranteed to an inventor by letters patent, cannot be depended upon to furnish perfect instruments, for their motives, by this fact, are shown to be dishonorable and mercenary.

Price of the Eye-sharpener with full directions, $2. Sent by mail to any part of the United States, postage prepaid on receipt of the price. Arrangements may be effected by letter for

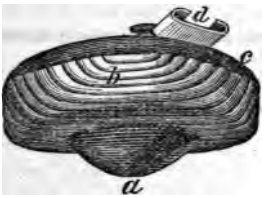
supplying those living out of the U. S., who desire to obtain it. For author's address see page 374.

HICKS' AIR-INFLATED RUBBER TRUSS PADS.

For a full description of the nature and value of these excellent pads, those who are afflicted with rupture or hernia are referred to the essay on this subject, beginning on page 202. I shall say very little in this place except to place on record the certificates of Prof. Benj. Silliman, of Yale College, and Dr. Valentine Mott, the well known surgeon:

"I consider the improved truss-pad of Dr. Lucien E. Hicks a very valuable addition to the means of protection, in cases to which trusses are applicable. Nothing is so *elastic* as *air*, with which the pad is filled, and the envelope of rubber in which it is included, furnishes the best security against its escape.

Fig. 94.



THE PERMANENT CURE PAD.

This cut exhibits the permanent cure pad with its attachment. A full view of the face of the same pad is given in page 207.

In this illustration, *a* is the naked rubber ball for exciting the adhesive inflammation; *b*, the corrugated cloth for carrying away the perspiration; *c*, the ledge in which the metallic plate is attached; *d*, the spring receiver where the attachment is made to the truss. As mentioned in the essay on rupture and hernia, this improved pad for effecting a cure, was invented subsequent to the date of Prof. Silliman's certificate, which refers wholly to the relief pad.

"The ratchet and spring enable the wearer to adjust the degree of pressure exactly to his own particular case, while the elasticity of the pad is very favorable to the closing of the ring through which the bowel is liable to protrude.

"The holes in the brass plate that covers the pad enable one to give it a position to the right or left, until by trial the proper inclination is ascertained.

"By this improved truss, if applied early, before the ring is too much enlarged, a cure may be effected, and a complete protection may in all cases be attained.

"The elasticity of the hoop must of course be ascertained by trial, and will be various in different cases. When the elasticity is of the proper degree, and the hoop is protected by appropriate stuffing under the strap, the truss of *Dr. Hicks* becomes a very comfortable appendage, and can be worn without any annoyance.

"*The preceding observations are the result of a critical attention, during the last eighteen months, to different varieties and trials of this truss, and are now communicated for the benefit of the inventor and his representatives, and their patients.*

"B. SILLIMAN"

The celebrated Surgeon Dr. Mott added his testimony as follows:

"I think the improved PATENT TRUSS of DR. L. E. HICKS, an excellent invention. The air-pad constitutes its greatest novelty and improvement.

"VALENTINE MOTT, Prof. of Materia Medica and Surgery."

These pads may be obtained by mail by those at a distance, at no greater cost than if applied for personally at my office. The prices are as follows: One relief pad, three dollars; two relief pads, five dollars; one permanent cure pad, and one relief pad, five dollars; one permanent cure pad, and two relief pads, seven dollars. Sent by mail to all parts of the United States, postage paid, on the receipt of the price. They can be attached without difficulty, to any truss, so that any one who already possesses a good spring, has only to obtain the pads.

Persons sending cash orders by mail, will receive the pads promptly, postage prepaid, accompanied with all necessary directions for applying them.

In all cases desiring to obtain a radical cure, at least a pair of pads will be necessary, one permanent cure pad and one relief pad. After the former has produced the necessary adhesive inflammation, the relief pad should be put on, and worn until the parts become strong and healthy. Those having incurable hernia, will find no pad equal to the relief pad for comfort and durability.

Trusses with necessary pads complete, will be furnished in my office or by express for $10, except in cases of double rupture or hernia. A truss with all the necessary pads for the latter, is $15. In ordering by mail, measurements must be given. If there be but one rupture or hernia, the measure must be made from the tumor in an opposite direction across the bowels, and around the hip on the opposite side from the tumor to the back-bone. This will be better understood when I inform the reader that the spring I furnish, does not go from the tumor around to the back on the same side on which the tumor protrudes, but comes from the back around the side opposite the tumor. In cases of double rupture or hernia, I must have the measurement around the body by placing the end of a piece of tape or tape-measure at the lowest extremity of the abdomen and passing it around the hips and body to the starting place.

Orders, whether for pads alone, or for a truss, must invariably be accompanied with the money according to the prices stated in the foregoing.

To THE CITIZENS OF NEW YORK AND VICINITY.—All of you who are afflicted with rupture or hernia are urgently requested to *examine every variety of truss pads*, and other appliances for the relief and cure of these difficulties within your knowledge, before examining these; for the rubber air pads which I offer challenge comparison, and only an examination of them is necessary to convince every one, that *nothing has yet been discovered which can in any degree equal them.*

Such is the verdict of all my professional acquaintances, of every surgeon to whom I have shown them, and of every patient who has worn them.

It is not expected that truss establishments will adopt these pads in their trade. They are altogether too durable. It is not for the interest of those who are wholly engaged in that department of trade and depending exclusively on it, to furnish goods which can hardly wear out. The inventor has intrusted their exclusive manufacture in my hands, and very likely those who need them will be unable to obtain them from any other source. I shall be glad to supply truss houses with them at prices that will allow first-rate profits to dealers, if they are willing to supply something which will either cure the patient or last him nearly his lifetime. My address will be found on page 374.

PREVENTIONS.

If any apology is needed for the introduction in this chapter of safe and harmless means for the prevention of conception, it will be found in an essay commencing on page 365. In that essay reasons are given, which must be satisfactory to every rational mind, and I shall therefore proceed at once with the matter properly coming under this head.

Firstly, I will speak of the "*Membraneous Envelope.*" This is an improvement on the ordinary French Male Safe or Condum, and, like it, entirely envelops the penis. Unlike the "Safe," however, it is a good conductor of magnetism or electricity, and permits the free and unobstructed influx and efflux of individual electricity in the act of coition—also the combined action of the alkalies and acids. The Condum or Safe is manufactured from the intestines of sheep, hogs, etc., and is more or less permeated with oleaginous or fatty matter, which is a non-conductor of electricity, and consequently a non-conductor of the magnetism of the sexes. Then, too, it is quite too thick to render its use agreeable. The Membraneous Envelope is prepared from the bladder of a fish caught in the Rhine. It is flexible, and silky in texture, and a perfect conductor of electricity and magnetism, being

entirely free from fatty matter. In consequence of these peculiarities, and its extreme thinness, its use does not in the least interfere with the pleasure of the act, while its susceptibility to electrical influences renders its use entirely *harmless*. It is also more reliable because *stronger*. This fact would seem almost incredible when I say that it takes nearly two dozen of the "*Membraneous Envelopes*" to weigh half an ounce, the average weight of each being only about ten grains! But, notwithstanding their extreme fineness of texture, it would require quite as much force to break one of them as would be necessary to abrade the mucous membrane of the glans penis. There is not the least danger of their breaking, and in this respect they are vastly superior to the article they so much resemble. In cases of ulceration of the womb, leucorrhœa, or any other venereal disease, the use of the Membraneous Envelope is of the greatest utility, because, while it is a sure preventive of conception, it also prevents either party from contracting disease. It is of course impossible for the male to contract a disease from the female or a female to contract disease from a male when it is used, and this is a decided recommendation for it when it is remembered how commonly even married ladies are diseased in those organs, and how often, too, virtuous ladies are physically contaminated by vicious husbands. Many married men are proverbially promiscuous, and do not attempt to hide their habits from their wives; and such persons, particularly, ought for humanity's sake to employ the Membraneous Envelope when having sexual connection with their wives—and the latter could not be blamed for rigidly insisting upon it. The Membraneous Envelope can be sent by mail with ordinary letter postage, and will be supplied by the author at five dollars per dozen, or three dollars per half doz. A sample will be sent for one dollar if wished.

Secondly, "*The Apex Envelope.*" This is certainly an ingenious contrivance, just large enough to cover the glans penis without enveloping the whole organ. It is composed of rubber of a delicate texture, not thicker than the cuticle itself, and so shaped and bounded at the open end with an India-rubber ring, that when adjusted to the glans, it adheres so closely as to appear almost like a part of the organ itself.

It is entirely a new thing as well as the "Membraneous Envelope," and is preferred by many. It however has this objection: rubber is a non-conductor of electricity, and also impervious to the action of either the alkali or acid. Inasmuch as the Apex Envelope does not cover the whole penis, however, it does not prevent the interchange of the individual electricity, but it does prevent the generation of chemical electricity in the copulative act. Herein it is defective. There can be no question as to its safety, if properly adjusted.

This article can be enclosed in a letter with ordinary postage, and will be supplied by the author at three dollars per doz., or two dollars per half dozen. Sample one dollar. The foregoing are used by the male. The following means may be resorted to by the female.

Thirdly, *The Electro-Magnetic Preventive Machine.* This is a discovery of my own, and was suggested to my mind by the fact that barrenness often exists when the husband or wife exceeds the other in physical vigor. The vulgar remark in such cases is that "*he is too passionate for her*," or that "*she is too passionate for him.*" The philosophy of this is, *there is too great a disparity between their electrical conditions, in consequence of which the womb is too greatly excited electrically to retain the seed of the male.* I have therefore taken advantage of this physiological discovery to furnish sure and harmless means for the prevention of conception. This method has stood the test for over eight years, during which time it has never failed except in one instance, and then it was clearly the fault of the one applying it.

There are always some stupid people in the world who cannot understand the simplest directions, and it is only a wonder that this discovery has not fallen into the hands of more of that sort of people. But happily it has received the highest commendations from all who have applied it except in the instance named. Full and unrestrained intercourse may be indulged in, and there *are no painful shocks or injurious results attending its use.*

No lady need be afraid of it because it is a magnetic machine. Its application is not in the least disagreeable. The price of the machine, with all the necessary appliances, is fifteen dollars. The expensiveness of this means of prevention, is the *only* objection that can be urged against it, and almost every married man, sooner or later expends three times as much as the cost of an Electro-Magnetic Preventive Machine, for the concoctions of quacks, such as "prevention pills," injections, &c., and has nothing to show for his outlay in the end. The instrument, unless badly used, is worth nearly as much at the end of five years as the purchaser pays for it, and it may often be resorted to with decided advantage in disease. Every family would do well to possess one for therapeutic purposes. Therefore, no one, in buying an Electro-Magnetic Preventive Machine, is throwing away his money for something of no intrinsic value, as it is worth, and will sell again for all that is paid for it. This I send by express to any part of the United States and Canadas on receipt of the price by mail or otherwise; or it can be obtained on personal application at my office.

Fourthly, and lastly, *The Womb Veil.* This consists of an India-rubber contrivance which the female easily adjusts in the vagina *before* copulation, and which spreads a thin tissue of rubber before the mouth of the womb so as to prevent the seminal aura from entering. It is an ingenious invention, and a patent has been applied for. This prevention possesses the following qualities: Conception cannot possibly take place when it is used. The full enjoyment of the conjugal embrace can be indulged in during coition. The husband would hardly be likely to know that it was being used, unless told by the wife. Its application is easy and accomplished in a moment, without the aid of a light. It places conception entirely under the control of the wife, to whom it naturally belongs; for it is for her to say at what time and under what circumstances, she will become the mother, and the moral, religious, and physical instructress of offspring. It is durable, and will last a great many years. Science, it seems to me, can hardly give a more complete contrivance than this for the prevention of conception. The Electro-Magnetic Preventive Machine is intrinsically more valuable because it can be employed for other purposes. But for this specific purpose nothing yet discovered can equal it for simplicity and utility. When seen, it speaks for itself, to any one conversant with the anatomy of the female organs. Physicians who examine it, at once pronounce it "just the thing." Nor can I see that any harm can arise from its use. It permits the free and unobstructed interchange of individual electricity and the union of alkalies and acids, and, in fact, obstructs no function in copulation, except the reproductive. Since its invention I have introduced it quite extensively, and to all it appears to give the highest satisfaction. The Womb Veil, with its necessary appendages, can be obtained by mail or on personal application at my office. Price six dollars. Sent closely sealed to any part of the United States, postage paid, on receipt of the price.

I have now introduced to my readers the only reliable means yet discovered for the prevention of conception. There are various other contrivances and theories put forth, but after a careful examination of them, I feel constrained to say that I cannot conscientiously introduce them or recommend them here. They are either unreliable, injurious, or absolutely dangerous. I have endeavored in this essay to avoid every thing charlatanish, and to recommend only such means as I feel convinced are worthy the attention of married people. Those who wish to order of me any of the means I have referred to will find my address on page 374. All orders must be accompanied with the cash to receive attention.

I would say to the reader, by way of caution, that I have not, nor shall I, have agents for the introduction of the foregoing articles. It would be an easy thing for unprincipled persons to impose imperfect and unreliable imitations on those who are not familiar with such things, and consequently those of my readers who want them, will do better to send their orders directly to me. All consultations, whether in person or by letter, with regard to these matters, will be treated with the strictest confidence.

SCROTAL SUPPORTER.

This consists of a nice elastic sack or bag with suitable appendages to sustain the scrotum or pouch containing the testicles of the male. It should be worn by all persons affected with varicocele, and it is a very comfortable article for all gentlemen to wear during very warm weather when the scrotum is apt to be relaxed. Young men who have weakened their procreative organs by masturbation, will also find its use not only comfortable but almost indispensable to assist in the restoration of the vigor and strength of the parts. It can be washed as often as desired, and is very durable. Price $2. Sent by mail, postage prepaid to any part of the United States or Canada, on receipt of the price. (For my address see page 374.)

FEMALE SYRINGE.

There are any number of styles of syringes for the use of females. Some are made of glass; others of Britannia, hard rubber, etc. But those manufactured from vulcanized rubber are altogether the most efficient instruments. Then, there are various qualities of these, the best of which, is the "Double Valve Syringe" represented on page 175. This instrument will throw a volume of water or other fluid with great force, so as to penetrate every part of the vaginal cavity, and it may be used for years without losing its elasticity, while others are apt to become rigid and hard after a few months' use. No one good habit conduces more to the health of the female than that of occasionally syringing the vagina, and keeping thereby the organs of procreation cleanly and free from corrosive or acrimonious secretions. As this matter has been fully treated upon in the essay entitled "Chronic Diseases of the Female Organs of Procreation," beginning on page 165, it is not necessary for me to give space to the subject here. Suffice it to say, ladies wishing to possess themselves of an excellent article of this kind, can be supplied confidentially on application to me in person or by letter, Price $3. Sent by mail, postage prepaid, to any part of the United States, on receipt of the price. (For my address see page 374.)

PILE COMPRESSER.

This very useful instrument is difficult to describe, so that the reader would catch a correct idea of its construction, nor could a picture of it be made to illustrate its shape and use unless so immodestly complete as to represent it adjusted to a person. It is a comfortable little harness with an oblong oval ball so fastened on a spring as to give a gentle and supporting pressure to the anus. It is an exceedingly comfortable and in no way disagreeable contrivance to wear in all cases of external piles, and particularly those of a varicose nature. For falling of the rectum also, it is a valuable invention (see page 145). This instrument will be sent by express on receipt of $10.

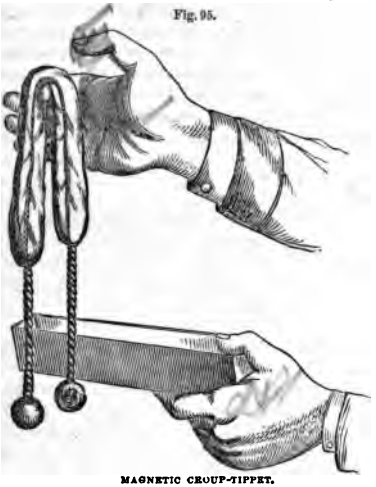
SHOULDER BRACES.

The use of these is only advisable when a person has actually acquired a stooping posture, or when necessary to *aid* in curing spinal curvature. They should by no means be depended upon to the exclusion of other treatment in the latter case. I have the best articles manufactured for both sexes. Price $2. Sent by express on receipt of the price. Those living at a distance who order by mail, must send the measure of the waist and also around the shoulders. To obtain a correct measurement of the latter, the arms should drop directly down while a friend passes the measure around the upper part of the body an inch below the shoulders. (For my address see page 374.)

MAGNETIC CROUP TIPPET.

This is a sure and harmless preventive against attacks of croup. It consists of a simple case of merino, filled with a resinous compound negatively electrified. Tied about the neck of a child at night it will, in all cases, keep off that terrible disease which hurries so many dearly loved little ones into infant graves. Its efficacy has been thoroughly tested, not only in my own family but by friends and patients who have children. It matters not how severe a cold a child may have taken, by tying the tippet about its neck, the parent may retire to rest with a feeling of perfect security.

Fig. 95.



MAGNETIC CROUP-TIPPET.

Every child, whether it has been threatened with this distemper or not, should wear it nightly from the beginning of cold weather till spring, for no mother can tell when the insidious disease may make its unexpected attack. The tippet can be safely left off every morning so that the child need not be encumbered with it during the day. Nor is it an uncomfortable appendage at night. Children are invariably pleased with it, and will not allow their mothers to forget to put it on.

Parents who are accustomed to being aroused at night time by the startling croup cough will be glad to avail themselves of this excellent preventive, to save themselves from such annoyance and anxiety, and their children from the perils of the disease. Price two dollars. Sent by mail, postage prepaid, to all parts of the United States on receipt of the price. They are manufactured only by myself, and if any are offered bearing some other person's name as manufacturer or inventor, they may be regarded as imitations of uncertain efficacy. (For my address see page 374.)

DR. FOOTE'S MAGNETIC ANTI-BILIOUS PILLS.

Every family has its favorite cathartic and anti-bilious medicine of some kind. The effects of bad habits in living and the influences of some climates, seem to render some such family medicine necessary. With many the blue pill is the household poison. The only active property of this medicine is mercury, and if Haller and other good medical authority can be relied upon, the small quantity of mercury contained in each pill taken remains in the system, so that every dose adds to the stock carried about by the patient, till finally the poisonous mineral attacks some nerve or muscle, and doubles up its victim with neuralgia or rheumatism.

A larger class, however, are patrons of patent-medicine makers, who, by combining some drugs of a drastic or relaxing nature, manufacture pills which are pretty sure to at least move the bowels within a few hours after the dose is taken. While the system is overloaded with minerals by the use of these popular panaceas, they almost invariably predispose the bowels to constipation, so that their continued use is necessary to keep up the action of the bowels

To supply something which does not possess the poisonous property of the blue pill, nor the constipating property of the pill offered by patent-medicine venders, I have concluded to recommend in this chapter my Magnetic Anti-Bilious Pill, a medicine I have successfully employed in bilious affections in my practice for the past ten years. Although it does not contain one particle of mercury or other mineral, its contact with the gastric juices of the stomach generates just the nervous stimuli required to give activity to the liver; and inasmuch as it operates by supplying the bowels with the necessary quantity of bile to lubricate the intestinal canal and dissolve the hardened feces, no reaction takes place, and consequently no constipation follows. Then too, inasmuch as its active properties are the result of its electrical action on coming in contact with the acidiferous secretions of the stomach, it is equally beneficial for all temperaments, a virtue which it is safe to say no other purely vegetable pill possesses. Its merits may be briefly summed up as follows: 1st. It contains not a particle of mineral of any description; 2d. It is active, inasmuch as only one is usually required at a dose; 3d. It acts thoroughly, but mildly, without in the least griping the bowels; 4th. A constipating reaction does not follow its employment; 5th. It may be considered as almost a specific for headache; 6th. It is the cheapest pill that can be adopted as a family medicine. This last named claim is not only sustained by the fact that its effects are more permanent than those of other anti-bilious medicines, but by the additional one that a single pill usually suffices for a dose. Each box contains the number of pills usually expected in a box (25), and the price is the same that is commonly charged for a box of pills (25 cents).

Although my Magnetic Anti-Bilious Pills have never been advertised in any way till introduced here, I receive orders for them almost daily from all parts of the United States, the persons sending for them having been recommended to do so by former patients of mine, who ascertained their good qualities while under my treatment. I should have put them before the public long ago, except for a disinclination to appear in the charlatanish arena with a swarm of patent medicine-venders, and I shall now hardly venture beyond the pages of this work in giving publicity to their merits. I record them in this chapter among the other good things I shall be willing to furnish to only those who want them. They may be advantageously employed in torpor of the liver, costiveness, indigestion, bad breath, sallowness, jaundice, and headache. Price 25 cents per box, sent by mail, postage prepaid to any part of the United States, on receipt of the price. Supplied by the quantity at $2 per dozen, and sent by express at the expense of the one who orders. (For my address see page 374.)

DR. FOOTE'S MAGNETIC OINTMENT

But very few embrocations in the form of salves, ointments, and liniments, are fit to be used, for the reason that they are generally composed of anodynous ingredients only calculated to lull the pain, while the disease causing it goes on progressively till the soothing power of the embrocation is exhausted, when the pain recommences with redoubled severity. My magnetic ointment differs from the various preparations of the day made for external use in this respect—*it diverts to the spot where it is applied, the healing magnetic forces of the system.* This it does without producing any soreness of the skin, although it not unfrequently imparts a temporary redness to it. In cases wherein the blood is very impure, it may occasionally draw the impurities to the surface in the form of an eruption, but it is not in any sense a counter-irritant. Nor does it put to sleep the voice of inflammation (pain) while the inflammation itself secures a firmer hold on the part affected. It may be employed with the most successful results in all recent cases of rheumatism, and in advanced stages of this painful disease if aided with proper internal medication. For recent inflammations in any part of the system, sore eyes, scalds, burns, bruises, cuts, sprains, broken breasts, etc., it may be regarded as an infallible specific. The relief is almost instantaneous.

When the throat is sore it may be applied to the outside with extraordinary benefit. Its application to the stomach and bowels of infants and children, will give instant relief in cases of worms, colic, crampings, etc. Its application to the throat and upper part of the chest is excellent in cases of croup. Every mother should have a pot of it in the house, inasmuch as it may be employed, externally, for many of the painful ills of children, thereby saving the administration of internal medicines, which are usually too freely given.

Like my magnetic anti-bilious pills, my magnetic ointment has only been used in the families of my patients and their friends and acquaintances, as I have never advertised it. But its rare merits have carried it into many an household, through the recommendations of those who had accidentally learned of its excellent qualities, and, at this moment, there are hundreds of families in all parts of the United States who think they can hardly keep house without it. In a large family, seldom a day passes that it may not be advantageously employed, while in every household, whether its inmates are numerous or few, its presence and use will save many doctor's bills and a great deal of pain and distress. Price $1 per pot, each pot containing eight ounces. Small sample bottles 25 cts. each. Sent by express on receipt of the price. In purchasing, if not ordered directly of me, see that my name is on the label, as there are any number of preparations bearing the name of magnetic ointment which possess no magnetic properties at all. For the information of those who sensibly abjure the use of all mineral preparations, I will add, that my magnetic ointment does not contain a particle of any mineral substance.

GALVANIC INSOLES.

These are invaluable for persons subject to cold feet. They are light and flexible, and are to be worn in the shoes or boots, where their contact with the insensible perspiration of the feet generates a galvanic influence which invites the circulation of the nervous forces and blood to the extremities. They also greatly relieve rheumatism affecting the feet and limbs. For ladies and gentlemen suffering with cold feet, they are especially valuable, and have given relief in a short time to many, who, for years, had been annoyed by this discomfort. Cold feet should never be neglected, for they indicate a derangement of the circulation, which is almost certain to be followed with physical derangements of a more painful and dangerous nature. These soles are perfectly comfortable and durable. Persons ordering will need to give the measure of the feet to obtain right sizes.—Sent by mail, postage prepaid, to any part of the United States, on receipt of $1.50.

CONCLUDING REMARKS.

In concluding this chapter of useful mechanical and electrical remedies and preventions, I will say that any of my readers residing in city or country, wishing for any thing of a medical or surgical nature not named herein, may apply to me for it. Ladies, particularly, would rather apply to a physician for mechanical remedies, etc., than to call at public places for them. All letters, or personal consultation concerning any thing of the kind, will, in all cases, be treated with perfect confidence. In country places it is often difficult to obtain some things which are easily found in a large city like New York. As I employ in their several departments, persons possessing medical and anatomical attainments, I can occasionally detach one or more of them from their regular duties to look after the wants of my correspondents. Persons addressing me by mail will please, in all cases, enclose a letter-stamp to prepay the postage on my reply. This proposition being made for the benefit of my readers entirely, the omission of a stamp for the prepayment of my answer will excuse me from making any reply whatever.

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EDWARD B. FOOTE, M. D.,

"*My Dear Doctor*:—Having returned
to avail myself of your peculiar and remar
forms of Chronic diseases—I cannot refrain from ma
tude to you for your scientific instrumentality in restoring
after many months of nervous and physical prostration befo
medical charge.

"You are well aware of my own peculiar eccentricities, habits, idios
sult of inherent proclivities, and a life of twenty-five years given to lite
medical pursuits. You know how I have toiled in the editorial treadmill, an
ciated, in some degree, the arduous and responsible labors I was in duty co
form, while occupying a very important Professor's Chair, among the f
and prosperous Medical University in the City of Philadelphia. Th
in physical and mental powers, I was finally compelled, in duty t
to seek the means of *vital* recuperation of my general organism
is an old saying, but how few, even among the most le
tioners, ever '*know themselves*' sufficiently well to en
insure a 'sound mind in a sound body.' Hence, I v
chief editor of a leading journal in Philadelphia, and
tion, with a view to do something, if possible, for th

When the throat is sore it may be applied to the outside with extraordinary benefit. Its application to the stomach and bowels of infants and children, will give instant relief in cases of worms, colic, crampings, etc. Its application to the throat and upper part of the chest is excellent in cases of croup. Every mother should have a pot of it in the house, inasmuch as it may be employed, externally, for many of the painful ills of children, thereby saving the administration of internal medicines, which are usually too freely given.

Like my magnetic anti-bilious pills, my magnetic ointment has only been used in the families of my patients and their friends and acquaintances, as I have never advertised it. But its rare merits have carried it into many an household, through the recommendations of those who had accidentally learned of its excellent qualities, and, at this moment, there are hundreds of families in all parts of the United States who think they can hardly keep house without it. In a large family, seldom a day passes that it may not be advantageously employed, while in every household, whether its inmates are numerous or few, its presence and use will save many doctor's bills and a great deal of pain and distress. Price $1 per pot, each pot containing eight ounces. Small sample bottles 25 cts. each. Sent by express on receipt of the price. In purchasing, if not ordered directly of me, see that my name is on the label, as there are any number of preparations bearing the name of magnetic ointment which possess no magnetic properties at all. For the information of those who sensibly abjure the use of all mineral preparations, I will add, that my magnetic ointment does not contain a particle of any mineral substance.

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